2013

Game Design and Development Business Plan

Fanshawe College

BUSINESS PLAN FOR GAME DESIGN AND DEVELOPMENT

Business plans must be submitted to the Academic Program Planning Sub-committee (APPS) by **December 1st**, for programs to be implemented in the fall of the following academic year. APPS will forward the business plans to the Board of Governors, Credential Validation Service, and the Ministry for approval.

The Business Plan will be developed using this template, and in consultation with a Curriculum Consultant from the Centre for Academic Excellence (CAE). All areas of this template and all Appendices must be completed.

1.0 Program Specifications:

Title of Proposed Program:	**Game Design & Development**
Credential to be Awarded:	_____ Local Board Approved Certificate _____ Ontario College Certificate _____ Ontario College Diploma __X__ Ontario College Advanced Diploma _____ Ontario College Graduate Certificate _____ Degree
Intake(s):	__X__ Fall _____ Winter _____ Spring
Year of First Intake:	2014 - Fall
No. of Students in First Intake:	24
Length of Program: Number of semesters – 6 semesters Semester length (in weeks) – 15 weeks per semester	

2.0 Executive Summary

Game Design and Development is proposed as a six semester three year advanced diploma delivered primarily in a classroom and computer lab format. As the curriculum is enacted there will be opportunity in upper semesters for hybrid courses. The third year is envisioned in a studio format with teams of students working on community and client projects with a modest emphasis on growing commercialization and entrepreneurship. Faculty commitment to this project is high and faculty are skilled. Centre for Digital and Performing Arts and related programming and future partnerships are exciting aspects of this program proposal.

The program will serve as an enrolment growth opportunity for Fanshawe College that dovetails with an existing cluster of Interactive Media and 3D Animation programs. Gaming programs have long been a staple of large Ontario and national community colleges and the digital media sector is a declared growth opportunity in London and Ontario. As the economy transitions from manufacturing goods and products to creating knowledge, creating entertainment, and leveraging content, video gaming growth has soared and moved into adult mainstream as well as the stable youth audience. The new CDPA – Center for Digital and

Performance Arts opening at 157 Dundas Street this fall is an opportunity to brand Fanshawe as a leader in digital assets and web solutions. As a foundational subject area common at many urban colleges for decades it is time for Fanshawe to show leadership in this content area.

Gaming exceeded Hollywood profits recently. Skills learned by graduates in Game Design and Development will lead to specialized and generalist careers within and beyond game economy. Graduates may end up as riggers, shaders, character designers, texture artists or graduates might use these skills in architecture, medical animations, education, broadcast and web assets, etc.

Local and provincial experts have endorsed the curriculum and have participated in focus groups and round tables. The same groups attend the national DIG – Digital Interactive Gaming conference held in London the last five years. Community support for the new CDPA and its focus on digital and performance are seen as fresh starts and a catalyst to grow this sector in London.

3.0 Academic Programming and Quality **Score: ___/25**

New programs will be developed by the School/Faculty responsible for the program in consultation with the other affected enabling/partner divisions/departments including, but not limited to, Language and Liberal Studies, Co-operative Education, Continuing Education, departments responsible for service delivery and support of the program, etc. ***See Appendix G for the detailed list***

3.01 Program Description

- Attached ***Appendix B: Program Description.***

Admission Standards:
Consultation: Registrar's Office.

Standard Wording for Post-Secondary Programs:

- Ontario Secondary School Advanced Diploma with the majority of senior level courses at the College (C), University (U) or University/College (M) levels, OR Grade 12 Equivalency, OR Mature Student Status.
- Grade 12 English at the (C) or (U) level.

3.02 Curriculum

- Attached ***Appendix E: Degree Audit/ Program of Instruction***

3.03 Curriculum Design and Delivery

- Attached ***Appendix A1: Program Outcomes- Curriculum Map***

The first two years of the program are foundational subjects supporting game design and development learning. This program does have a focus on art and art techniques and the key specialization is the project based, and/or client and/or research projects that blend community needs and partners with student experiential learning. The target audience(s) are direct and non-direct students from High school. There is also a possible entry from current prep programs: Fine Art Foundation, General Arts Media and Design stream, or film stream and in future via Design fundamentals or Media fundamentals prep programs expected to launch in next three years. Non-technical course and some arts courses already exist though have been reimagined in this planned curriculum. Topics such as life drawing, sculpture, art history, critical approaches to gaming and narrative structures, film studies will all have roles in certain courses.

The intent is to marry traditions with cutting edge technical approaches to have a fresh, diverse and needed approach to game design and other occupations needing sophisticated graphics and animated film approaches.

The third year is an opportunity for community based projects. The current animation program – post –grad is attracting international students. The client based approach works well with research goals. E-learning and hybrid approaches will evolve as the students are sophisticated media learners.

3.04 Vocational Program Learning Outcomes

- Attached ***Appendix A: Program Maps, Form 1 - Vocational Program Outcomes***.

3.05 Employability Skills Learning Outcomes

- Attached ***Appendix A: Program Maps, Form 2 - Essential Employability Skills Outcomes***.

3.06 Ministry Form for Weighting Purposes

- Attached ***Appendix D: Program Delivery Information (PDI) Form to Calculate Program Funding Parameters.***

3.07 Relationship to Professional or Licensing Bodies

There is not an accrediting body for this subject. Consults were done with members of local and provincial groups related to gaming. As well certain gaming and digital media PD events are well attended by faculty, entrepreneurs, large corporations, and students: Future Innovation Technology Creativity (FITC), Digital Interactive & Gaming (DIG), Montreal International Game Summit (MIG), Canada 3.0, etc. There are several affiliated professional advocacy organizations.

3.08 Course Descriptions

- Attached ***Appendix C: Program Curriculum.***

What method(s) of delivery are planned?

- Lab and/or Classroom with FOL for each course. Homework and projects outside of class
- Some capacity for hybrid delivery especially as students move to upper semesters
- Experiential learning, project based learning and flipped classroom methodologies

What were the deliberations/rationale regarding the use of alternative delivery.

As the program is launched faculty will explore alternate delivery methods. Since the program has a high level of software use and students will have a natural affinity for web based applications, it is expected that hybrid models and other learning formats will develop.

What is the role of experiential learning as part of the chosen curricula.

Related programs in this area use experiential and project based learning. Capstone projects are the norm. The third year is envisioned as integrated, experiential and possibly research based client projects.

What opportunities will there be for developing learning pathways?
The curriculum was built with the concept of articulations being developed. A program coordinator for the IDP – Interactive Media Design and Production Program is currently serving as a committee member on an ONCAT project, led by Brock University, mapping gaming programs in both colleges and universities to determine student pathways.

As well, IDP – Interactive Media Design and Production diploma program has an articulation established with University of Waterloo – Stratford. IDP is also one of the four programs that participate in the MTP – Media Theory and production Collaborative Degree with Western University. Given the subject of this advanced diploma and provincial student demand and increased opportunities for colleges and universities to work together, degree completion, and articulations should be easy to develop as the program unfolds. There is laddering for this program – direct entry from high school or a prep program, then the three year program, and if the student desires opportunities for a post grad program.

In summary:

Pathways from existing and future prep programs

ONCAT project participation by faculty
Articulation with University of Waterloo – Stratford digital campus
Funded research projects
Interactive team part of MTP partnership with Western
Ability to grow articulations

Three post grad options: 3D Animation and Character Design, Visual Effects and Editing, Interactive and Media Specialist

Explain how research and innovation will be introduced into the curriculum.

Faculty lead projects are the key to having students love research projects.

Recently the Interactive Media programs had Professor Rob Haaf win the college wide research and innovation award which shows the talents of Rob and whole faculty team for bringing research projects to life and obtaining funding. Projects involve educational, gamification, animated films, playable games, adaptive technologies, app development, and medical related educational assets.

In the cluster of programs where this program would fit there is already a tradition of client centred, experiential and capstone projects. The area has used internal and external research funds to embed research concepts in curriculum. There is a coordinator role in the department called “Project Integration Coordinator” to assist faculty in developing these types of learning activities and to act as liaison with CRI – Centre for Research and Innovation and with outside funders.

Describe how you will comply with any regulatory or accreditation requirements.

N/A

4.0 Fit of Program **Score: ___/25**

4.01 Institutional Fit

How does the program fit with the College's institutional mandate, strategic plan and priorities?

The program will bring new FTE students to Fanshawe meeting Strategic Goal # 1. The program is a six semester program so enrolment growth will increase as the program flow through unfolds.
The School of Contemporary Media is a Centre of Excellence and as such provides a premier learning and career preparation experience in the Ontario Community College system.

This program aligns with other cluster programs from the Contemporary Media Centre for Excellence such as Interactive Media Design and Production, Interactive Media Specialist, Visual Effects and Editing, and 3D Animation and Character Design. Graduates of the Fine Art Foundation program may see this program as a natural fit. As well Graphic Design and Photography have some subject alignment.

The Game Design Advanced Diploma Program fits with LEDC London Economic Development Corporation focus on the digital media, ICT, and gaming sector. For several years the LEDC has encouraged and supported growth in these sectors. As well, the London Cultural Profile Report and the London Cultural Prosperity Plan encourage arts related economic development and see a high co-relation between arts related employment and standard of living in the city.

National investment in ICT and this industry include gaming tax credits, the explosive expansion of youtube and Canadian's high use of youtube. Graduates of the program will be able to find employment across many sectors needing game art or animation: animation, gaming, special effects, film, journalism, architecture, 3D modeling, fine art, etc. There is much convergence across sectors.

There is a national movement to increase Canada's leader role in ICT and digital media. Here is the mandate of the national Canadian Digital Media Network in nearby Waterloo:

"Canada's opportunity in the digital economy lies in exercising our strengths across the full digital media continuum: strong technology and tools, rich content, and a satisfying user experience. The Canadian Digital Media Network is Canada's largest concentration of business-driven digital media research, technology development, and digital commercialization expertise. We use digital media tools, technology and applications to advance multiple industries – entertainment, health care, education, financial services, and advanced manufacturing." http://www.techvibes.com/company-directory/canadian-digital-media-network

4.02 Similarity of Program

How is the program similar to or different from existing programs at the College?

This program is most similar to the two semester Graduate Certificate in 3D Animation and Character Design but serves a different audience group. This program is focused on the first or second year student entering the program towards breadth and depth for career preparation. Graduating students or those returning from the field might then take the post grad program. Within the six semesters there are courses that are in other programs: history of art and design, 3D modeling, life drawing, game art, etc. There is also some cross over to Visual Effects and Editing post-grad program. Software programs such as 3D studio max etc. are used in other programs.

What impact will this program have on existing programs at the College? Does the proposed program provide additional breadth to our offerings, or does it add specific disciplinary depth?

The proposed Game Design and Development program will change the curriculum of the current post graduate certificate in 3D Animation and Character Design. As students progress through level six of the advanced diploma the coursework for the post grad will change.

The number of students in IDP - Interactive Media may change. Overall the program will increase the net number of Fanshawe students.

As the new program has student enrolment flow through anticipated enrolments in related and affiliated topics will shift and curriculum will be adjusted to differentiate programs and future career options from one another.

Are there similar programs being offered provincially to the one being proposed? Nationally? (Include location of programs and a brief description of these programs.)

Three year advanced diplomas run at George Brown, Durham, Niagara, and Algonquin. Sheridan has a Bachelor of Game Design and Seneca all have healthy intakes in similar programs. This type of programming is a staple at many Canadian community colleges particularly in urban centres and attracts high numbers of applicants. George Brown had over 900 applications for just over 200 spots.

Attached is a chart of enrolment in similar Ontario programs in 2013 based on OCAS statistics.

What makes this program unique from existing programs that are similar?

The curriculum is fresh and built without 20 years of historic bias of what a game design program should be. It reflects the skill set that current professionals feel is most current and appropriate for skill development. The first two years are foundational knowledge with an art, interactive media and design focus.

The combination of art and video game creation is emphasized as advised by the expert panel. The curriculum is both universal, but also addresses needs in London and region.

The third year is the major differentiator: the plan is to teach in a studio environment using a client based, community partnership, entrepreneurship, research and commercialization centred approach. The post grad program has been experimenting with 3D printers and soon, scanners. As well connect based mo-cap in a portable economical format with excellent results is also a growing high demand skill.

4.03 Transfer between Proposed Program and Other Post-Secondary Programs

Indicate what program articulations/transfers are anticipated or under negotiation between this program and other post-secondary programs (internal and external)?

The curriculum was built with the concept of articulations being developed. A program coordinator for the IDP – Interactive Media and Production Program is currently serving as a committee member on an ONCAT project, led by Brock University, mapping gaming programs in both colleges and universities to determine student pathways. As well IDP – Interactive Game Design and Production diploma program has an articulation established with University

of Waterloo – Stratford. IDP is also one of the four programs that participate in the MTP – Media Theory and production Collaborative Degree with Western University.

Given the subject of this advanced diploma and provincial student demand and increased opportunities for colleges and universities to work together, degree completion, and articulations should be easy to develop as the program unfolds. There is laddering for this program – direct entry from high school or a prep program, then the three year program, and if the student desires opportunities for a post grad program. Articulation to Sheridan's degree program is another possibility.

Key Questions/perspectives in this Section that need to be addressed for APPS:

TechAlliance and Fanshawe have a draft MOU in negotiation to support and grow the digital media sector. Location downtown will enhance partnership agreements. LEDC and others have been driving the digital economy. Professors already have key alliances with several leaders in the community. The 3D animation post grad program has "PRO Day" where students and professionals work on a time prescribed digital project, there is a 24 hour challenge, there are numerous contest opportunities, Skills Canada for Animation, and relationships with BIZ Inc.

What would be the competitive advantage of the program?

Current fresh curriculum free from former gaming bias to move into new era of gaming
Dedicated and committed faculty with some R&D experience
New downtown campus, high end facilities
Client and research projects in studio environment in year three
Internal branding of Fanshawe's research arm in the interactive and gaming sectors
Future potential for a Research Chair model
Community partnerships: existing and future
Gaming and Serious Gaming focus
Skills of graduates will be assets for many employment sectors – primarily gaming but also architectural and medical modeling, R &D, education, animated materials for market presentations
Digital economy and cultural economy are growing

How do competitors differentiate themselves?

Several schools have invested in P2P relationships, incubators, or research programs or community partnerships: NGen, Velocity, Digital Media Zone etc.

Fanshawe is doing this but having a group of students in a three year advanced diploma will grow this brand and continue teaching excellence. Downtown building will be a brand enhancing endeavor.

5.0 Demand for Program **Score: ___/25**

5.01 Student Demand ***(from Stage Gate I – may be enhanced from research)***

Attached – OCAS statistics

5.02 Employment Demand ***(from Stage Gate I – may be enhanced from research)***

Student target: direct, non –direct and International

How will this program help achieve the College's enrolment growth strategy?

This program brings new FTE students to the college in an affinity subject area and adds a three year diploma to the School of Contemporary Media.

Flow through after semester six is projected by Strategy and planning to be 123 students.

What strategic benefit will this program provide?

Grow student numbers
Curricula that complements existing programs
Meets regional economic growth plans
Dedicated faculty
Community support
New facility already in place
"meets the needs of our various communities for educated and trained workers/citizens?"
Educates students in digital economy and cultural economy

6.0 Feasibility of Program **Score: ___/25**

6.01 Physical Resources

- a) **Technology requirements** - include capital equipment required for start-up and full implementation of the program; type of equipment and infrastructure enhancements needed to operationalize the equipment (electrical upgrade, water, eye wash station, fume hood, etc) and results of consultations and discussions regarding technology requirements.

  Required: high end gaming and animation computer labs and related software meeting specs of labs in new building. Regular classrooms.

  Currently there is space for one section as online gaming program for 2013/14 was suspended and was planned for the building; however flow through to semester six may mean extra lab time is needed. In future, ability to use e-learning hybrid course strategies *may* permit two sections of senior level courses in one lab over a semester. Building 2 may provide future space

- b) **Space requirements**

  Space requirements have been discussed through CDPA project growth in relationship to previous discussed future pure animation program (now Game Design and Development based on community consults)

  See form D- for lab /classroom/total TCH hours breakdown

  Currently space not used by Online Game Development would work for start-up of this program but flow through years will require more lab space. Second building downtown may work or creative scheduling in CDPA.

- c) **Computing requirements** - include hardware and software required for start-up and full implementation of the program; cost of hardware/software and results of consultations and discussions regarding technology requirements.
  Consultation: Information Technology Services.

Key Questions/perspectives in this Sub-Section that need to be addressed for APPS:

Please estimate the amount of capital investment required to implement this program that is beyond your existing capital allotment. If this exceeds $1.5 Million, also indicate if you have identified the source of these funds.

See attached costing projection by Strategy and Planning

Identify size, type and attributes of classroom and/or dedicated labs

35 seat high end labs – similar to new rooms downtown or to M2018 on campus

Identify special lab amenities/attributes (functional requirements noted in 6.01a that impact 6.01b)

Advanced video card, Advanced WIFI, Advanced Audio Card, CINTIQ tablets

Will the program require additional space (offices, dedicated academic space, etc)?

Work spaces are needed for each full time faculty connected to the program, for the program coordinator, and for support staff

What are the implications for existing IT architecture given program size, delivery format and computing requirements?

Fits within current norms

What are the software requirements (include Connect and program fees)?

Not a Connect program. Currently no additional program fees expected; however many media programs do have NTI fees and this program may include NTI fees for trips, laptops, etc. Software parallel to high end post grad computer labs downtown and M2018 on campus

What are the software licensing fees (one time and annual)?

Same as Animation lab at CDPA, Adobe, 3D Studio Max, Unity Pro, Office Suite and various other software from year to year.

Is there a requirement to purchase enabling technologies (clickers, smart boards, etc)?

Standard needs of all future classrooms – podium, projector, smart board, Wi-Fi, cross functional seating and data drop and electrical needs to support BYOD students

Can the proposed hardware and software run on the College's networks?

Yes

What are the on-line registration, e-learning and FOL requirements?

Within current norms

Are there specific IT staff support needs for the program?

Yes – currently one PT tech supports post grad program but as six semesters come into play this support will need to increase

6.02 Learning Resources

Similar to Interactive programs – Library and Media needs

6.03 Human Resources

Strategy and Planning costing projection includes one full time for startup and 10 hours of part time or partial load teaching. Two courses in first year curricula are service courses from LLS. No coordinator hours are in the projection. A coordinator role is essential to program success.

Additional FTE and NFT faculty will be required once student flow through happens

Key Questions/perspectives in this Sub-Section that need to be addressed for APPS:

Estimate the staffing requirements that are above your existing HR complement.

By year three of program:

4 fulltime faculty and several part time and partial load if program grows to future state of two sections of 30 times a six semester program. This would mean 1935 TCH according to the degree audit.

If research and client project aspect of program grows to anticipated future research revenue projections then a dedicated Research Chair and support person would be required. Brand and reputation management require rapid accelerated human supports similar to models used at Ryerson's DMZ – Digital Media Zone. Dedicated, committed, talented faculty and staff are key to this program having a leadership role in our catchment but also nationally. Failing to invest in the right people, at the right moment for creative and curriculum success will result in less quality for students and fewer future FTE enrolments.

Would there be any changes to your current staffing arrangements in order to implement this new program?

No

Would there be any additional training needs?

This topic is very dependent on constant software upgrading so faculty PD will be necessary

6.04 Student Services/Learning Experiences **(TBD as program develops)**

- Connections to Centre for Academic Excellence (CAE)
- Connections to Continuing Education.
- Connections to International Education.
- Connections to Centre for Research and Innovation.
- Other Learner / Student Success Services as required.

Consultation: as listed above, expand if required for your program proposal

6.05 Marketing Plan

- Outline marketing strategies that will assist in reaching the appropriate student populations for this program.

TBD pending program approval – BUDGET $10,000.00

Consultation: Brand and Reputation Management.

.6.06 Multi-Year Enrollment Projections (Headcount)

Consultation: Registrar.

	2014/15	2015/16	2016/17	2017/18	Ongoing
Year One	46	46	46	46	
Year Two		41	41	41	
Year Three			38	38	
Year Four					
Number of Graduates			35	35	
Total Enrollment	46	87	125	125	

6.07 Budget for Program - (multi-year)

- Attached ***Appendix F: Multi-Year Budget Projections.***

6.08 Tuition Fees

Consultation: Registrar's Office, Financial Planning.

- Proposed annual tuition fee: $___5566.00_____
- Fees: Regular Yes _____ No _X____

  Deregulated Yes _X____ No _____
- What are other colleges charging for similar programs?

  George Brown - $6668.00 per year
  Durham - $7870.00 per year
  Niagara - $6846.00 per year
  Algonquin - $2647.87

6.09 Start Up Costs

- Start up costs

- one time marketing costs, $10,000
- capital requirements labs and software – see Appendix F (dependent on space)

6.10 Allocation of Resources

- TBA – to be discussed at fall budget review and Base budget
- - Creation of budget package

7.0 Consultation Report

Include results of all appropriate consultations regarding development and/or implementation of this program on ***Appendix G: Consultation Report.***

Submitted by: _____ Date: _____

Signature of Dean

Ontario College Quality Assurance Service
Service de l'assurance de la qualité des collèges de l'Ontario

ONTARIO COLLEGES OF APPLIED ARTS AND TECHNOLOGY

CREDENTIALS VALIDATION SERVICE

APPLICATION FOR PROGRAM VALIDATION

This proposal will be sent to MTCU for Approval for Funding _____X_Yes _____ No

1. College: Fanshawe College
2. College contact person responsible for this proposal: Name: Robert Reichhardt Title: Professor/Curriculum Coordinator Telephone: 226.374.6188 Electronic mail: rreichhardt@fanshawec.ca
3. Proposed Program Title: Video Game Design & Development
4. Proposed Credential: (please indicate below) Local Board Approved Certificate ☐ Ontario College Certificate ☐ Ontario College Diploma ☐ Ontario College Advanced Diploma - X Ontario College Graduate Certificate ☐
5. Proposed Program Outcomes: Please complete and attach the two Program Maps (Appendix A - Form 1 and Form 2) - Attached
6. Proposed Program Description: Please complete and attach the Program Description Form (Appendix B) - Attached
7. Proposed Program Curriculum: Please complete and attach the Program Curriculum Form (Appendix C) - Attached
8. Proposed Program Certification/Accreditation: Please complete and attach the Regulatory Status Form (Appendix D) - Attached
9. Date of Submission:

ONTARIO COLLEGES OF APPLIED ARTS AND TECHNOLOGY
CREDENTIALS VALIDATION SERVICE

APPENDIX A - PROGRAM MAPS

Form 1 - Vocational Program Outcomes

PROVINCIAL PROGRAM STANDARD VOCATIONAL LEARNING OUTCOMES / PROVINCIAL PROGRAM DESCRIPTION OUTCOMES	**PROPOSED PROGRAM VOCATIONAL LEARNING OUTCOMES**	**PROPOSED PROGRAM CURRICULUM (COURSE NAME & NUMBER) ADDRESSING THE OUTCOME** (From Appendix C)
Design unique gaming environments, levels and characters.	>Create original concept art, models and animations for game characters. >Execute creative concepts and ideas through a variety of techniques.	MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – Digital Drawing 1, 2, 3 & 4 MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Texture 1 & 2 & 3 MMED-XXXX – Modelling 1 & 2 MMED-XXXX – Thesis Capstone
Develop, test and evaluate procedures for the creation, design and development of games.	>Create sophisticated processes and methodologies that generate the framework for a video game. >Apply industry standard protocols using appropriate software for alpha and beta testing.	MMED-XXXX – 3D Asset Development 1 & 2 MMED-XXXX – Thesis Capstone 1 & 2 MMED-XXXX – Portfolio Development 1 & 2 MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – UNITY 1 & **2**
Create games by applying programming concepts.	>Apply a variety of coding and scripting solutions in the production of video game projects.	MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Thesis Capstone 1 & 2
Develop, debug and modify code to meet design specifications for games.	>Incorporate industry standard video game testing methodologies.	MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Thesis Capstone 1 & 2
Create and produce digital components, games and documentation using a variety of computer platforms.	>Use current and relevant software and technologies in the creation of digital assets, characters and game levels.	MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – Digital Drawing 1, 2, 3 & 4 MMED-XXXX – Animation 1 MMED-XXXX – Animation (MOCAP) MMED-XXXX – Animation – Rigging MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Texture 1 & 2 & 3 MMED-XXXX – Modelling 1 & 2 MMED-XXXX – Production Technology 1 & 2
Choose game strategies and patterns based on an analysis of past and present trends.	>Create innovative video games in different genres using market based data and historical precedents.	MMED-XXXX – Game Theory MMED-XXXX – Technological Survey MMED-XXXX – Art & Design Survey MMED-XXXX – Game Design 1 & 2 & 3

Contribute as an individual and a member of a team and provide leadership as required.	>Apply contemporary business practises and strategies in the development of video games.	MMED-XXXX – 3D Asset Development 1 & 2 MMED-XXXX – Thesis Capstone 1 & 2 MMED-XXXX – Portfolio Development 1 & 2 MMED-XXXX – Business – Project Management
Complete all work in compliance with Canadian laws and policies.	>Create art, assets, levels and completed video games using authorized industry standard tools and software.	MMED-XXXX – Portfolio Development 1 & 2 MMED-XXXX – Thesis Capstone 1 & 2 MMED-XXXX – Business – Project Management
Produce and present business communication, documentation and information effectively and accurately in written and verbal form for game creation and development.	>Incorporate written documents into video game proposals, business plans, marketing strategies, creative briefs and presentations.	MMED-XXXX – Thesis Capstone 1 & 2 MMED-XXXX – Portfolio Development 1 & 2 MMED-XXXX – Business – Project Management
Adapt game designs to meet requirements of the current marketplace.	>Create digital strategies to build video games for a wide variety of platforms and end users.	MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Thesis Capstone 1 & 2 MMED-XXXX – Business – Project Management
Produce animated cut-scenes and sequences in the form of digital video and event-driven real-time animations utilizing a game engine.	>Utilize a variety of digital applications including video & audio editing and special effects software.	MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Animation 1 MMED-XXXX – Animation (MOCAP) MMED-XXXX – Animation – Rigging MMED-XXXX – 3D Asset Development 1 & 2
Support the creation of pre-production and production elements of game design utilizing observational skills, technical skills, and traditional and digital media.	>>Apply project management methodologies and best practises in the creation of all work.	MMED-XXXX – Portfolio Development 1 & 2 MMED-XXXX – Game Theory MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – Capstone 1 & 2 MMED-XXXX – Asset Development 1 & 2

ONTARIO COLLEGES OF APPLIED ARTS AND TECHNOLOGY
CREDENTIALS VALIDATION SERVICE

APPENDIX A - PROGRAM MAPS

Form 2 - Essential Employability Skills Outcomes

SKILL CATEGORIES	**DEFINING SKILLS** Skill areas to be demonstrated by the graduates	**ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES** The graduate has reliably demonstrated the ability to:	**PROPOSED CURRICULUM (COURSE NAME & NUMBER) ADDRESSING THE OUTCOMES** (From Appendix C)
COMMUNICATION	Reading Writing Speaking Listening Presenting Visual Literacy	Communicate clearly, concisely, and correctly in the written, spoken, and visual form that fulfils the purpose and meets the needs of the audience	MMED-XXXX – Game Theory MMED-XXXX – Technological Survey MMED-XXXX – Art & Design Survey MMED-XXXX – Digital Drawing 1, 2, 3 & 4 MMED-XXXX – Portfolio Development 1&2 MMED-XXXX – Business – Project Management MMED-XXXX – Thesis Capstone 1 & 2
		Respond to written, spoken, or visual messages in a manner that ensures effective communication	MMED-XXXX – Game Theory MMED-XXXX – Technological Survey MMED-XXXX – Art & Design Survey MMED-XXXX – Portfolio Development 1&2 MMED-XXXX – Business – Project Management MMED-XXXX – Digital Drawing 1, 2, 3 & 4 MMED-XXXX – Thesis Capstone 1 & 2

SKILL CATEGORIES	DEFINING SKILLS Skill areas to be demonstrated by the graduates	ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES The graduate has reliably demonstrated the ability to:	PROPOSED CURRICULUM (COURSE NAME & NUMBER) ADDRESSING THE OUTCOMES (From Appendix C)
NUMERACY	Understanding and applying mathematical concepts and reasoning Analysing and using numerical data Conceptualizing	Execute mathematical operations accurately	MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – Animation (MOCAP) MMED-XXXX – Animation – Rigging MMED-XXXX – Production Technology1&2 MMED-XXXX – UNITY 1 & 2 MMED-XXXX – 3D Asset Development 1&2
CRITICAL THINKING & PROBLEM SOLVING	Analysing Synthesizing Evaluating Decision-making Creative and innovative thinking	Apply a systematic approach to solve problems	MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – Digital Drawing 1, 2, 3 & 4 MMED-XXXX – Animation 1 MMED-XXXX – Animation (MOCAP) MMED-XXXX – Animation – Rigging MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Texture 1 & 2 & 3 MMED-XXXX – Modelling 1 & 2 MMED-XXXX – 3D Asset Development 1&2 MMED-XXXX – Production Technology1&2 MMED-XXXX – Acting for Animators
		Use a variety of thinking skills to anticipate and solve problems	MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – Digital Drawing 1, 2, 3 & 4 MMED-XXXX – Animation 1 MMED-XXXX – Animation (MOCAP) MMED-XXXX – Animation – Rigging MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Texture 1 & 2 & 3 MMED-XXXX – Modelling 1 & 2 MMED-XXXX – 3D Asset Development 1&2 MMED-XXXX – Production Technology1&2

SKILL CATEGORIES	DEFINING SKILLS Skill areas to be demonstrated by the graduates	ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES The graduate has reliably demonstrated the ability to:	PROPOSED CURRICULUM (COURSE NAME & NUMBER) ADDRESSING THE OUTCOMES (From Appendix C)
INFORMATION MANAGEMENT	Gathering and managing information Selecting and using appropriate tools and technology for a task or a project Computer literacy Internet skills	Locate, select, organize, and document information using appropriate technology and information systems	MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – Digital Drawing 1, 2, 3 & 4 MMED-XXXX – Animation 1 MMED-XXXX – Animation (MOCAP) MMED-XXXX – Animation – Rigging MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Texture 1 & 2 & 3 MMED-XXXX – Modelling 1 & 2 MMED-XXXX – 3D Asset Development 1&2 MMED-XXXX – Production Technology1&2
		Analyse, evaluate, and apply relevant information from a variety of sources	
INTERPERSONAL	Team work Relationship management Conflict resolution Leadership Networking	Show respect for the diverse opinions, values, belief systems, and contributions of others	MMED-XXXX – Acting for Animators MMED-XXXX – Acting 2 MMED-XXXX – Thesis Capstone 1 & 2 MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Game Theory MMED-XXXX – Business – Project Management MMED-XXXX – Production Technology1&2
		Interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals	MMED-XXXX – Thesis Capstone 1 & 2 MMED-XXXX – Acting for Animators MMED-XXXX – Acting 2S MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – UNITY 1 & 2 MMED-XXXX – Business – Project Management

SKILL CATEGORIES	**DEFINING SKILLS** Skill areas to be demonstrated by the graduates	**ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES** The graduate has reliably demonstrated the ability to:	**PROPOSED CURRICULUM (COURSE NAME & NUMBER) ADDRESSING THE OUTCOMES** (From Appendix C)
PERSONAL	Managing self Managing change and being flexible and adaptable Engaging in reflective practices Demonstrating personal responsibility	Manage the use of time and other resources to complete projects	MMED-XXXX – Thesis Capstone 1 & 2 MMED-XXXX – Portfolio Development 1&2 MMED-XXXX – Business – Project Management MMED-XXXX – Game Design 1 & 2 & 3 MMED-XXXX – UNITY 1 & 2 MMED-XXXX – 3D Asset Development 1&2

APPENDIX A1 – Program Outcomes – Curriculum Map Year 1

PROGRAM MAPPING (Program Name)																			
	LEVEL ONE									LEVEL TWO									
PROGRAM VOCATIONAL LEARNING OUTCOMES 1 - Introductory 2 - Intermediate 3 - Advanced **The graduate has reliably demonstrated the ability to: (Source: MTCU Code:)**	Introduction to 3D	DigitalDrawing 1	Art & Design Survery	Game Theory	Acting For Animators	Anatomy 1	WRIT	Gen-Ed		Animation 1	Digital Drawing 2	Technology Survey	Texture 1	Modeling 1	Anatomy 2	Game Design 1	COMM		# OF COURSES EVALUATING THE OUTCOME
> Create original concept art, models and animations for game characters. > Execute creative concepts and ideas through a variety of techniques.		1									1		1	1		1			5
> Create sophisticated processes and methodologies that generate the framework for a video game. > Apply industry standard protocols using appropriate software for alpha and beta testing.																1			1
> Apply a variety of coding and scripting solutions in the production of video game projects.																1			1
> Incorporate industry standard video game testing methodologies.																1			1
> Use current and relevant software and technologies in the creation of digital assets, characters and game levels.		1								1	1		1	1		1			6
> Create innovative video games in different genres using market based data and historical precidents.			1	1								1				1			4
> Apply contemporary business practices and strategies in the development of video games.																			0
> Create art, assets, levels and completed video games using authorized industry standard tools and software.	1	1			1	1				1	1		1	1	1	1			10
> Incorporate written documents into video game proposals, business plans, marketing strategies, creative briefs and presentations.												1				1			2
> Create digital strategies to build video games for a wide variety of platforms and end users.																1			1
> Utilize a variety of digital applications including video and audio editing and special effects software.										1			1	1					3
> Apply project management methodologies and best practices in the creatiion of all work.				1												1			2
TOTAL # OF OUTCOMES EVALUATED BY EACH COURSE	1	3	1	2	1	1	0	0		3	3	2	4	4	1	10	0	0	
V = Vocational Courses E = Essential Employability Skills Courses GM = General Education (mandatory) G = General Education (elective)	V	V	E	V	V	V	G	G		V	V	E	V	V	V	V	GM		

NB - Only indicate the outcomes that are Taught & Evaluated (TE or TRE) in a course

Analysis of Mapping Results:

PROGRAM COORDINATOR:

ACADEMIC CHAIR:

Date Completed:

PROGRAM MAPPING (Program Name)																				
	LEVEL ONE									LEVEL TWO										
PROGRAM ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES 4 = R 5 = RE 6 = TE 7 = TRE T = Taught R = Reinforced E = Evaluated **The graduate has reliably demonstrated the ability to: (Source: MTCU Code:)**	Introduction to 3D	DigitalDrawing 1	Art & Design Survery	Game Theory	Acting For Animators	Anatomy 1	WRIT	GEN-ED		Animation 1	Digital Drawing 2	Technology Survey	Texture 1	Modeling 1	Anatomy 2	Game Design 1	COMM		# OF COURSES SUPPORTING THE OUTCOME
1. communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.			6	6			6	6				6				6	6		7
2. respond to written, spoken, or visual messages in a manner that ensures effective communication.			6		6			6				6				6			5
3. execute mathematical operations accurately.	6									6						6			3
4. apply a systematic approach to solve problems.	6	6			6	6				6	6		6	6	6	6			10
5. use a variety of thinking skills to anticipate and solve problems.	6			6	6					6			6	6	6	6			8
6. locate, select, organize, and document information using appropriate technology and information systems.			6	6								6				6	6		5
7. analyze, evaluate, and apply relevant information from a variety of sources.	6			6				6		6		6				6			6
8. show respect for the diverse opinions, values, belief systems, and contributions of others.			6	6	6							6				6	6		6
9. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.					6							6				6			3
10. manage the use of time and other resources to complete projects.	6	6	6	6	6	6	6	6		6	6	6	6	6	6	6	6		16
11. take responsibility for one's own actions, decisions, and consequences.	6	6	6	6	6	6	6	6		6	6	6	6	6	6	6	6		16
TOTAL # OF OUTCOMES SUPPORTED BY EACH COURSE	6	3	6	7	7	3	3	5		6	3	8	4	4	4	11	5	0	

PROGRAM COORDINATOR:

ACADEMIC CHAIR:

Date Completed:

APPENDIX A1 – Program Outcomes – Curriculum Map Year 2

PROGRAM MAPPING (Program Name)																		
	LEVEL THREE								LEVEL FOUR									
PROGRAM VOCATIONAL LEARNING OUTCOMES **1** - Introductory **2** - Intermediate **3** - Advanced **The graduate has reliably demonstrated the ability to: (Source: MTCU Code:)**	Acting 2	Digital Drawing 3	Unity 1	Texture 2	Modeling 2	Production Technology 1	Gen-Ed		Animation Mocap	Digital Drawing 4	Unity 2	Texture 3	Animation Rigging	Production Technology 2	Game Design 2	Gen-Ed	# OF COURSES EVALUATING THE OUTCOME	TOTAL FOR PROGRAM
> Create original concept art, models and animations for game characters. > Execute creative concepts and ideas through a variety of techniques.		2	2	2	2					2	2	2	2		2		9	14
> Create sophisticated processes and methodologies that generate the framework for a video game. > Apply industry standard protocols using appropriate software for alpha and beta testing.			2								2				2		3	4
> Apply a variety of coding and scripting solutions in the production of video game projects.			2								2				2		3	4
> Incorporate industry standard video game testing methodologies.			2								2				2		3	4
> Use current and relevant software and technologies in the creation of digital assets, characters and game levels.		2	2	2	2	2			2	2	2	2	2	2	2		12	18
> Create innovative video games in different genres using market based data and historical precidents,															2		1	5
> Apply contemporary business practices and strategies in the development of video games.															2		1	1
> Create art, assets, levels and competed video games using authorized industry standard tools and software.	2	2	2	2	2				2	2	2	2	2	2	2		12	22
> Incorporate written documents into video game proposals, business plans, marketing strategies, creative briefs and presentations.															2		1	3
> Create digital strategies to build video games for a wide variety of platforms and end users.			2								2				2		3	4
> Utilize a variety of digital applications including video and audio editing and special effects software.									2				2				2	5
> Apply project management methodologies and best practices in the creatiion of all work.															2		1	3
TOTAL # OF OUTCOMES EVALUATED BY EACH COURSE	1	3	7	3	3	1	0		3	3	7	3	4	2		0		
V = Vocational Courses E = Essential Employability Skills Courses **GM = General Education (mandatory) G = General Education (elective)**	V	V	V	V	V	V	G		V	V	V	V	V	V	V	G		

NB - Only indicate the outcomes that are Taught & Evaluated (TE or TRE) in a course

Analysis of Mapping Results:

PROGRAM COORDINATOR:

ACADEMIC CHAIR:

Date Completed:

PROGRAM MAPPING (Program Name)																		
	LEVEL THREE							LEVEL FOUR										
PROGRAM ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES **4 = R 5 = RE 6 = TE 7 = TRE** **T = Taught R = Reinforced E = Evaluated** **The graduate has reliably demonstrated the ability to: (Source: MTCU Code :)**	**Acting 2**	**Digital Drawing 3**	**Unity 1**	**Texture 2**	**Modeling 2**	**Production Technology 1**	**Gen-Ed**	**Animation Mocap**	**Digital Drawing 4**	**Unity 2**	**Texture 3**	**Animation Rigging**	**Production Technology 2**	**Game Design 2**	**GEN_ED**	**# OF COURSES SUPPORTING THE OUTCOME**	**TOTAL FOR PROGRAM**
1. communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.						6	6						7		6	4	11
2. respond to written, spoken, or visual messages in a manner that ensures effective communication.	7					6							7	7		4	9
3. execute mathematical operations accurately.			6					6		6		6		6		5	8
4. apply a systematic approach to solve problems.			6	7	7			6		7	7	6		7		8	18
5. use a variety of thinking skills to anticipate and solve problems.	7		6	7	7			7		7	7	7		7		9	17
6. locate, select, organize, and document information using appropriate technology and information systems.						6	6						7		6	4	9
7. analyze, evaluate, and apply relevant information from a variety of sources.			6					7		7		7				4	10
8. show respect for the diverse opinions, values, belief systems, and contributions of others.	7		7			6		7		7			7		6	7	13
9. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.	7							7								2	5
10. manage the use of time and other resources to complete projects.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	15	31
11. take responsibility for one's own actions, decisions, and consequences.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	15	31
TOTAL # OF OUTCOMES SUPPORTED BY EACH COURSE	**6**	**2**	**7**	**4**	**4**	**6**	**4**	**8**	**2**	**7**	**4**	**6**	**6**	**6**	**5**		

PROGRAM COORDINATOR:

ACADEMIC CHAIR:

Date Completed:

APPENDIX A1 – Program Outcomes – Curriculum Map Year 3

PROGRAM MAPPING - Video Game Design & Development																	
	LEVEL FIVE								LEVEL SIX								
PROGRAM VOCATIONAL LEARNING OUTCOMES 1 - Introductory 2 - Intermediate 3 - Advanced **The graduate has reliably demonstrated the ability to: (Source: MTCU Code:)**	**Game Design 3**	**Portfolio Development 1**	**Thesis Capstone1**	**3D Asset Development 1**	**Gen-Ed**				**3D Asset Development 2**	**Portfolio Development 2**	**Thesis Capstone 2**	**Business - Project Management**				**# OF COURSES EVALUATING THE OUTCOME**	**TOTAL FOR PROGRAM**
> Create original concept art, models and animations for game characters. > Execute creative concepts and ideas through a variety of techniques.	3	3	3	3					3	3	3					7	12
> Create sophisticated processes and methodologies that generate the framework for a video game. > Apply industry standard protocols using appropriate software for alpha and beta testing.	3	3	3	3					3	3	3	3				8	9
> Apply a variety of coding and scripting solutions in the production of video game projects.	3		3							3	3					4	5
> Incorporate industry standard video game testing methodologies.	3		3								3					3	4
> Use current and relevant software and technologies in the creation of digital assets, characters and game levels.	3	3	3	3					3	3	3					7	13
> Create innovative video games in different genres using market based data and historical precidents.	3		3								3					3	7
> Apply contemporary business practices and strategies in the development of video games.		3	3	3					3	3	3	3				7	7
> Create art, assets, levels and completed video games using authorized industry standard tools and software.		3	3							3	3	3				5	15
> Incorporate written documents into video game proposals, business plans, marketing strategies, creative briefs and presentations.		3	3							3	3	3				5	7
> Create digital strategies to build video games for a wide variety of platforms and end users.	3		3								3	3				4	5
> Utilize a variety of digital applications including video and audio editing and special effects software.				3					3							2	5
> Apply project management methodologies and best practices in the creatiion of all work.	3	3	3	3					3	3	3					7	9
TOTAL # OF OUTCOMES EVALUATED BY EACH COURSE	**8**	**7**	**11**	**6**	**0**				**6**	**8**	**11**	**5**					
V = Vocational Courses E = Essential Employability Skills Courses **GM = General Education (mandatory) G = General Education (elective)**	**V**	**V**	**V**	**V**	**G**				**V**	**V**	**V**	**E**					

NB - Only indicate the outcomes that are Taught & Evaluated (TE or TRE) in a course

Analysis of Mapping Results:

PROGRAM COORDINATOR:

ACADEMIC CHAIR:

Date Completed:

PROGRAM MAPPING (Program Name)																		
	LEVEL FIVE								LEVEL SIX									
PROGRAM ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES 4 = R 5 = RE 6 = TE 7 = TRE T = Taught R = Reinforced E = Evaluated **The graduate has reliably demonstrated the ability to: (Source: MTCU Code :)**	Game Design 3	Portfolio Development 1	Thesis Capstone1	3D Asset Development 1	Gen-Ed				3D Asset Development 2	Portfolio Development 2	Thesis Capstone 2	Business - Project Management				# OF COURSES SUPPORTING THE OUTCOME	TOTAL FOR PROGRAM
1. communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.	7	7	7		6					7	7	7				7	14
2. respond to written, spoken, or visual messages in a manner that ensures effective communication.		7	7							7	7	7				5	10
3. execute mathematical operations accurately.			7	7					7		7					4	7
4. apply a systematic approach to solve problems.	7		7	7					7		7	7				6	16
5. use a variety of thinking skills to anticipate and solve problems.	7		7	7	6				7		7	7				7	15
6. locate, select, organize, and document information using appropriate technology and information systems.	7	7	7	7						7	7	7				7	12
7. analyze, evaluate, and apply relevant information from a variety of sources.	7		7								7					3	9
8. show respect for the diverse opinions, values, belief systems, and contributions of others.	7	7	7	7					7	7	7	7				8	14
9. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.	7	7	7	7					7	7	7	7				8	11
10. manage the use of time and other resources to complete projects.	7	7	7	7	6				7	7	7	7				9	25
11. take responsibility for one's own actions, decisions, and consequences.	7	7	7	7	6				7	7	7	7				9	25
TOTAL # OF OUTCOMES SUPPORTED BY EACH COURSE	9	7	11	8	4	0	0		7	7	11	9	0	0	0		
PROGRAM COORDINATOR:																	
ACADEMIC CHAIR:																	
Date Completed:																	

ONTARIO COLLEGES OF APPLIED ARTS AND TECHNOLOGY
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APPENDIX B - PROGRAM DESCRIPTION

PROGRAM DESCRIPTION: (including occupational areas where it is anticipated graduates will find employment)

The Video Game Design & Development program at Fanshawe College is an intensive three-year advanced diploma focusing on the tools and techniques necessary to gain employment in the video game industry. The goal of the program is to provide students with the professional and artistic skills necessary to create compelling and innovative games.
Students will develop 2 and 3 dimensional skills by studying a curriculum focused initially on the core principles of video game creation. Foundation courses including art & design theory, modelling, animation, texturing, anatomy and drawing will provide the basis for understanding the various components that make up a video game.
Throughout the second year, students will study more advanced concepts of game design including character modelling and rigging, motion capture, texturing, level and game design. In their third year, students will assemble a portfolio of their work showcasing their abilities along with a demo of a fully functional video game.
An integral part of the Video Game Design & Development program at Fanshawe College is its relationship to the local community. London ON has a vibrant and growing video game industry. Professionals from this community include game designers, animators, producers and art directors who will play an important role by providing mentorship to students though critique and guest lectures.
Graduates of this program will find entry-level positions in the video game industry as concept artists, animators, level and game designers.

VOCATIONAL PROGRAM LEARNING OUTCOMES: (vocational program learning outcomes must be consistent with the requirements of the Credentials Framework for the proposed credential)

***The graduate has reliably demonstrated the ability to*:**

1. Create original concept art, models and animations for game characters.
2. Execute creative concepts and ideas through a variety of techniques.
3. Create sophisticated processes and methodologies that generate the framework for a video game. Develop, debug and modify code to meet design specifications for games.
4. Apply industry standard protocols using appropriate software for alpha and beta testing.
5. Apply a variety of coding and scripting solutions in the production of video game projects.
6. Use current and relevant software and technologies in the creation of digital assets, characters and game levels.
7. Create innovative video games in different genres using market based data and historical precedents.
8. Apply contemporary business practises and strategies in the development of video games.
9. Create art, assets, levels and completed video games using authorized industry standard tools and software.
10. Incorporate written documents into video game proposals, business plans, marketing strategies, creative briefs and presentations.
11. Create digital strategies to build video games for a wide variety of platforms and end users.
12. Utilize a variety of digital applications including video & audio editing and special effects software.
13. Apply project management methodologies and best practises in the creation of all work.

ADMISSION REQUIREMENTS: …

OSSD with courses from the College (C), University (U), University/College (M), or Open (O) stream

- OR -

Academic and Career Entrance Certificate (ACE)

- OR –

Ontario High School Equivalency Certificate (GED)

- OR –

Mature Applicant with appropriate preparation

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Program Rationale – Video Game Design & Development

'No other sector has experienced the same explosive growth as the computer and video game industry. Our creative publishers and talented workforce continue to accelerate advancement and pioneer new products that push boundaries and unlock entertainment experiences. These innovations in turn drive enhanced player connectivity, fuel demand for products, and encourage the progression of an expanding and diversified consumer base.'

-Michael Gallagher, President and CEO, Entertainment Software Association

Canada is home to some of the most innovative and renowned game development studios in the industry, including Bioware in Edmonton, Electronic Arts and Rockstar in Vancouver, UBISOFT in Toronto and Montreal, and Digital Extremes in London Ontario.

In Canada there are three major industry centres for video game development: Vancouver, Montreal and Toronto. All of these centres are internationally recognised hubs of the game industry. Canada possesses one of the world's strongest technical infrastructures for gaming. Statistics show that 95% of households own a personal computer with high-speed internet access and a further 61% own a video game console. Currently the global market for interactive game sales is approximately $70 billion USD (2013). Canada accounts for approximately 4% of sales or $2 billion USD. (ESAC Essential Facts 2013 guide)

In the last five years there has been a substantial increase in the development of video game programs at the community college level in Ontario. Seneca, Centennial, George Brown, Humber, Durham, Niagara, and Sheridan colleges all have video game programs of varying sizes and complexities. Sheridan College is the first college to create an advanced four-year degree program in game design. The desire for video game education abroad has grown substantially leading some colleges to open satellite programs in Asia.

Fanshawe College is the only major college in Canada that does not currently have a video game program. Although many colleges offering these programs saturate the GTA, the south-western region remains unrepresented. This is a good opportunity to capitalize on so that our local students do not leave to study video game in the GTA. Consequently - given the availability - prospective students from the GTA may choose to study video game design at Fanshawe. London ON has experienced explosive growth in the video game industry over the last 10 years. Companies including Digital Extremes, Big Blue Bubble, Antic Entertainment and Big Viking Games have created a video game cluster that is attracting talent from around the world. With a growing game industry in London a natural extension would be to offer the education to feed that industry with Fanshawe talent.

This proposed Video Game program would prepare students for careers in the 3D Animation, Video Game and Special FX industries. This three-year intensive, advanced diploma program, will draw from the Interactive Media, Fine Art and Graphic Design programs currently offered at Fanshawe as well as graduates from other colleges and universities.

ONTARIO COLLEGES OF APPLIED ARTS AND TECHNOLOGY
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APPENDIX C - PROGRAM CURRICULUM

Semester	Course Code*	Course Title (and brief course description)
1	MMED XXXX	**INTRODUCTION TO 3D –** This course will introduce students to the 3D environment using an industry standard 3D application. Topics will include: modelling, animating, lighting and rendering techniques. Both practical techniques and theoretical principles of 3D development will be explored.
1	MMED XXXX	**DIGITAL DRAWING 1 –**This is an introductory course into the study of two-dimensional design. Focus will be on using digital drawing tools & techniques to help visualize ideas. Topics will include realism, shading, lighting, colour, analysis of form, and concepts of light, space and surface. Students will refine their abilities to conceptualize, and develop drawings for gaming purposes.
1	MMED XXXX	**ART & DESIGN SURVEY –** This course will focus on the art & design disciplines and movements of the 19th, 20th and 21st centuries. Lectures include topics on art forms, industrial design, architecture, graphic design, typography and global design movements.
1	MMED XXXX	**GAME THEORY –** In this course, students will be introduced to the world of game design. They will consider how certain aspects of games are implemented into various game designs. Students will study the origins of game companies such as XBOX, Nintendo, SEGA, ATARI, etc. as well as develop an understanding of the cultural and societal issues as it relates to game development. Additional topics will include ethical issues in game design, genres, AI and the future of gaming.
1	MMED XXXX	**ACTING FOR ANIMATORS -** In this course students will be introduced to the various acting techniques necessary for animators to understand the relationship between physical action and their digital characters. It will cover the connection between thinking and emotion as well as thinking and physical action.
1	MMED XXXX	**ANATOMY 1 –** This is a course designed to teach digital artists the fundamentals of human anatomy and its relationship to the various aspects of character design (modelling, rigging and animation). It will cover human bone and musculature structures as well as individual body parts, skeleton mechanics etc. Study of action poses and movement will be also covered.
1	WRIT XXXX	**WRIT**
1	GEAA XXXX	**GEN-ED**
2	MMED XXXX	**ANIMATION 1 –** In the course students will explore the basic foundation principles of 2D and 3D animation. Topics will include: stretch & squash, anticipation, timing and motion, action, exaggeration, space, etc. Traditional and digital techniques will be explored.
2	MMED XXXX	**DIGITAL DRAWING 2 -** This is a continuation of Digital Drawing 1. Students will build on their previous drawing knowledge and explore intermediate techniques such as deconstructing complex objects into basic shapes making them easier to render.
2	MMED XXXX	**TECHNOLOGY SURVEY –** This course will introduce students to several of the supporting technologies for game design, production design, and animation. These technologies include 3D scanning, 3D printing, facial motion capture and full body motion capture. This course will also reinforce key principles such as file management, exporting formats and file storage.
2	MMED XXXX	**TEXTURE 1 –** This course will focus on using 3D Max with Photoshop to introduce the essential elements and concepts for texturing, lighting and rendering.
2	MMED XXXX	**MODELING 1 –** In this course students will explore the principles of 3D modelling. The course will address modelling techniques and how they relate to different applications such as digital characters, game environments etc. Students will learn about 3D geometry including the design of wireframe characters.
2	MMED XXXX	**ANATOMY 2 -** This is a continuation of Anatomy 1. Students will build on their previous anatomical knowledge and explore the intermediate aspects of the human body. Drawing from a live model will be an important component of this course.
2	MMED XXXX	**GAME DESIGN 1 -** This course is designed to introduce students to the broad field of game design. Students will learn not only what defines a game but also why people enjoy game play. This will include an introduction to concepts such as meaningful choice, intrinsic and extrinsic motivations and the difference between games and play. A hand's on, analytical and experimental interaction with games will provide the foundation for game design.
2	COMM XXXX	**COMM**

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APPENDIX C - PROGRAM CURRICULUM

Semester	Course Code*	Course Title (and brief course description)
3	**MMED XXXX**	**ACTING 2 –** *This course is a continuation of Acting for Animators.* In this course students will continue to explore and refine acting techniques
3	**MMED XXXX**	**DIGITAL DRAWING 3 -** This course is a continuation of Digital Drawing 2. Emphasis will be on developing technical ability. Human movement, expression, point of view, emotion and acting fundamentals will also be covered.
3	**MMED XXXX**	**UNITY 1 -** This course is designed to provide students with a strong design foundation in Unity 3D. Topics will include development for mobile and desktop games, proper use of scale, importing assets, proxy level design, adding lights, effects, textures and creating reusable assets.
3	**MMED XXXX**	**TEXTURE 2 -** This course expands on the first semester course by exploring advanced techniques for texturing. Students will learn how to unwrap, create advanced environment textures and skyboxes.
3	**MMED XXXX**	**MODELING 2-** *This course is a continuation of Modeling 1.* In this course students will expand on their previous knowledge by learning advanced concepts in modeling. These will include the creation of 'high and low' poly meshes, organic and hard surface modeling as well as modeling for game characters, quadrupeds etc.
3	**MMED XXXX**	**PRODUCTION TECHNOLOGY –** Students will be introduced to basic product design and explore how to design and fabricate their own products using industry standard software and tools that include a 3D Scanner and 3D Printer. This course will cover basic premises such as Conceptualizing a Product, and Prototyping.
3	**GEAA XXXX**	**GEN-ED**
4	**MMED XXXX**	**ANIMATION (MOCAP) –** This course is designed to introduce students to the concept of motion capture for film and video game. Various industry standard motion capture systems will be discussed. Students will use a motion capture system to capture data and apply that data in an industry standard 3D application. Additional content will include suit preparation, data capture and clean-up.
4	**MMED XXXX**	**DIGITAL DRAWING 4 -** *This course is a continuation of Digital Drawing 3.* Additional content for this course will include further study of human anatomy, musculature culminating in the creation of an ecorche.
4	**MMED XXXX**	**UNITY 2 –** *This course is a continuation of Unity 1.* Additional intermediate content for this course will include: Basic scripting implementation, controllers, particle systems, physics and export formats, game functionality and real-time simulations as well as the processes for publishing a game.
4	**MMED XXXX**	**TEXTURE 3 -** *This course is a continuation for Texture 2.* Students will learn advanced concepts of texturing as applied to game characters, game assets and game environments.
4	**MMED XXXX**	**ANIMATION RIGGING -** This course will introduce the principles of rigging as applied to bipedal characters. Utilizing the basic rigging tools (Bones, Biped, CAT etc.) students will explore the role of animation and creating lifelike movement in their characters.
4	**MMED XXXX**	**PRODUCTION TECHNOLOGY –** This course will focus on the iterative process of production design and will expand on the design work of the previous semester. Students will attempt to improve on their previous designs and test their prototypes in focus groups.
4	**MMED XXXX**	**GAME DESIGN 2 –** *This course is a continuation of Game Design 1.* It will explore more advanced themes of game design and investigate the genres of Serious Gaming, Simulations, Gamification, Edu-Games etc.
4	**GEAA XXXX**	**GEN-ED**

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APPENDIX C - PROGRAM CURRICULUM

Semester	Course Code*	Course Title (and brief course description)
5	**MMED XXXX**	**GAME DESIGN 3 -** This course is a continuation of Game Design 2. In this course students will expand on their previous knowledge and learn advanced problem solving techniques as related to game and level design. They will create levels from concept through to production and play testing. Additional content for this course will include: level design, artificial intelligence theory and (scripting), gameplay styles and limitations, gameplay analysis, level construction, architecture techniques, and design principles. By the course end, students will create a level complete with 3D assets, lighting, effects, and scripting.
5	**MMED XXXX**	**PORTFOLIO DEVELOPMENT 1 –** The goal of this course is to provide instruction and direction for the creation of an individual game portfolio. Students will research and create delivery options for their game demo such as a portfolio websites etc. They will be encouraged to find their own 'specialization' and tailor their portfolio accordingly. Additional content will include: interview process, resume, social media marketing, freelancing issues, contracts etc.
5	**MMED XXXX**	**THESIS CAPSTONE 1 –** This will be the final portion of the Video Game program. Student s will form interdisciplinary teams with the goal of completing a finished video game.
5	**MMED XXXX**	**3D ASSET DEVELOPMENT 1 –** Students will be introduced to the concept of 'asset tracking' for video game projects. Various asset tracking tools will be considered and appropriate tracking systems will be applied to their game projects.
5	**GEAA XXXX**	**GEN-ED**
6	**MMED XXXX**	**3D ASSET DEVELOPMENT 2 –** *This is a continuation of 3D Asset Development 1.* Students will continue to utilize asset tracking tools and software to ensure timely delivery of their 3D assets.
6	**MMED XXXX**	**PORTFOLIO DEVELOPMENT 2 -** *This course is a continuation of Portfolio Development 1.* In this course students will continue to work on and refine their individual portfolios.
6	**MMED XXXX**	**THESIS CAPSTONE 2 –** *This course is a continuation of Thesis Capstone 1.* In this course, students will experience the full life cycle of video game production from concept to full production. They will work in groups to create a final completed video game project overcoming technical obstacles as well as managing project scope. Team work, time management and conflict resolution issues will conclude the content for this course.
6	**MMED XXXX**	**BUSINESS – PROJECT MANAGEMENT –** The goal of this course is to provide students with the critical entrepreneurial skills to network and get established in their prospective field.

APPENDIX D

Program Delivery Information (PDI) Form to Calculate Program Funding Parameters
Total Hours Required per Student

College: Fanshawe College	Program title: Video Game Design & Develop

Indicate the number of hours that a student is required to spend in each instructional setting in each semester or level of this program. All hours in all instructional settings are to be noted.

Instructional Settings*	**Semester/Level**									
	1	2	3	4	5	6	7	8	9	Total
Classroom instruction	360	360	315	360	270	270				1935
Laboratory/workshop/fieldwork										
Independent (self-paced) learning										
One-on-one instruction										
Clinical placement										
Field placement/work placement ** ☐ Mandatory ☐ Optional										
Co-op work placement ** ☐ Mandatory ☐ Optional										
Small group tutorial										
Other (specify)										
TOTAL	360	360	315	360	270	270				1935

***Definitions for each instructional setting can be found on pages 5 – 7 or in electronic version place mouse over end note reference beside each setting.**

**** All hours in all instructional settings are to be noted including optional field or co-op placements.**

Classroom instruction: ***instruction that may be provided in a setting in which individuals do not require access to equipment, except as listed below:***

Situations in which microcomputer labs are used for instruction in standard word processing, spreadsheet, and database software packages

"Traditional" classrooms and lecture halls

"Virtual" classrooms used in on-line learning

Situations in which laboratories and workshops may be used for convenience

[1] *Laboratories/workshops/fieldwork:* ***scheduled hours of activities intended to give students hands-on experience; this instructional setting is characterized by:***

Activities in which students are provided with instruction and are directly supervised by college staff.

Settings either inside college facilities (e.g., laboratories, workshops) or outside college facilities (e.g., fieldwork) in which individual students are required to use instructional equipment and/or supplies. These settings do not include situations in which microcomputer labs are used for instruction of standard word processing, spreadsheet, and database software packages or situations in which laboratories and workshops are used for convenience.

[1] *Independent (self-paced) learning:* ***student directed learning in which contact with college staff is limited to situations in which advice or solutions to specific problems is sought.***

[1] *One-on-one instruction:* ***those exceptional situations in which college academic staff can provide instruction to only one student at a time.***

[1] *Clinical placement:* ***scheduled hours of activities intended to give students hands-on experience in a hospital or health care setting; this instructional setting is characterized by:***

Activities that are an integral component of the curriculum of the program and necessary for the successful completion of the program.

Activities in which students are continually supervised directly by college staff or individuals working on behalf of the college.

[1] *Field placement/work placement:* ***scheduled hours of activities intended to give students hands-on experience in the workplace and for which the students do not receive a regular salary or wage from the employer; this instructional setting is characterized by:***

Activities that are an integral component of the curriculum of the program and are necessary for the completion of the program.

Activities in which college staff do not directly supervise students and for which college staff undertake one or more of the following activities:

- **Make periodic site visits**
- **Ensure that assignments given to students and the work being done by students are suitable for the program**
- Monitor the students' progress in the field placement activity
- Help address problems encountered by students in the field or work placement activity

- Evaluate students' performance in the field or work placement activity

[1] *Co-operative education work placement:* ***scheduled hours of activities intended to give students hands-on experience in the workplace and for which students receive a regular salary or wage from the employer; this instructional setting is characterized by:***

A period of time that is normally one-half of and not less than one-third of the time spent in academic study. The work placement does not replace the academic component of the program.

Activities that are not an integral component of the curriculum of the program and are an enhancement to the program.

Activities in which college staff do not directly supervise students and for which college staff undertake one or more of the following activities:

- Evaluate the work placement site
- Make periodic site visits
- Ensure that assignments given to students and the work being done by the students are suitable for the program

[1] *Small group tutorial:* ***instruction that, for androgogical reasons, must be provided to groups of fewer than 10 students and that may be provided in a setting in which individual students do not require access to equipment except as indicated below:***

Situations in which microcomputer labs are used for the instruction of standard word processing, spreadsheet, and database software packages

Situations in which laboratories and workshops are used for convenience

APPENDIX E - Program of Instruction

Prog # **Program Name: Video Game Design & Development**
Plan # **Plan Name:**

FOR STUDENTS ADMITTED IN 2014-15 (Reg. Term)

LEVEL 1				**2014F**		
Crs. No.	**Course Name**	**Credits**	**Elective**	**Hours**	**Material Fee**
MMED XXXX	Intro to 3D (Computer lab)	3		3	
MMED XXXX	Digital Drawing 1 (Computer lab)	3		3	
MMED XXXX	Art & Design Survey (Non- Computer lab)	3		3	
MMED XXXX	Game Introduction (Computer lab)	3		3	
MMED XXXX	Acting for Animators (Non- Computer lab)	3		3	
MMED XXXX	Anatomy (Computer lab)	3		3	
WRIT XXXX	WRIT (Non- Computer lab)	3		3	
GEAA XXXX	Gen-ed (Non- Computer lab)	3		3	
	Total Credits:	24		24	

LEVEL 2				**2015W**		
Crs. No.	**Course Name**	**Credits**	**Elective**	**Hours**	**Material Fee**
MMED XXXX	Animation 1 (Computer lab)	3		3	
MMED XXXX	Digital Drawing 2 (Computer lab)	3		3	
MMED XXXX	Technology Survey (Non- Computer lab)	3		3	
MMED XXXX	Texture 1 (Computer lab)	3		3	
MMED XXXX	Modeling 1 (Computer lab)	3		3	
MMED XXXX	Anatomy 2 (Computer lab)	3		3	
MMED XXXX	Game Design 1 (Computer lab)	3		3	
COMM XXXX	COMM (Non- Computer lab)	3		3	
	Total Credits:	24		24	

LEVEL 3				**2015F**		
Crs. No.	**Course Name**	**Credits**	**Elective**	**Hours**	**Material Fee**
MMED XXXX	Acting 2 (Non- Computer lab)	3		3	
MMED XXXX	Digital Drawing 3 (Computer lab)	3		3	
MMED XXXX	Unity 1 (Computer lab)	3		3	
MMED XXXX	Texture 2 (Computer lab)	3		3	
MMED XXXX	Modeling 2 (Computer lab)	3		3	
MMED XXXX	Production Technology (Computer lab)	3		3	
GEAA XXXX	Gen-Ed (Non- Computer lab)	3		3	
	Total Credits:	21		21	

LEVEL 4			2016W		
Crs. No.	Course Name	Credits	Elective	Hours	Material Fee
MMED XXXX	Animation (MOCAP) (Computer lab)	3		3	
MMED XXXX	Digital Drawing 4 (Computer lab)	3		3	
MMED XXXX	Unity 2 (Computer lab)	3		3	
MMED XXXX	Texture/Prototyping (Computer lab)	3		3	
MMED XXXX	Animation (Rigging) (Computer lab)	3		3	
MMED XXXX	Production Technology 2 (Computer lab)	3		3	
MMED XXXX	Game Design 2 (Computer lab)	3		3	
GEAA XXXX	Gen-Ed (Non- Computer lab)	3		3	
	Total Credits:	24		24	

LEVEL 5			2016F		
Crs. No.	Course Name	Credits	Elective	Hours	Material Fee
MMED XXXX	Game/ Level Design (Computer lab)	3		3	
MMED XXXX	Portfolio Development (Computer lab)	3		3	
MMED XXXX	Thesis (Capstone) (Computer lab)	6		6	
MMED XXXX	3D Asset Development (Computer lab)	3		3	
GEAA XXXX	Gen-Ed (Non- Computer lab)	3		3	
	Total Credits:	18		18	

LEVEL 6			2017W		
Crs. No.	Course Name	Credits	Elective	Hours	Material Fee
MMED XXXX	3D Asset Development (Computer lab)	3		3	
MMED XXXX	Portfolio Development (Computer lab)	6		6	
MMED XXXX	Thesis (Capstone) (Computer lab)	6		6	
MMED XXXX	Business/ Project Management (Computer lab)	3		3	
	Total Credits:	18		18	

Appendix G Multi Year Budget

Program Name	Game Design and Development											
Program type	Advanced Diploma											
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**Total**
Incremental revenues												
Grants:	Notes											
- program name	1	n/a	167,596	316,147	316,147	316,147	316,147	316,147	316,147	316,147	316,147	2,696,772
Tuition:												
- program name	2,3,4	134,302	254,689	366,727	366,727	366,727	366,727	366,727	366,727	366,727	366,727	3,322,807
Program Specific fee **	5	0	0	0	0	0	0	0	0	0	0	0
Other associated revenue		0	0	0	0	0	0	0	0	0	0	0
sub-total		134,302	422,285	682,874	682,874	682,874	682,874	682,874	682,874	682,874	682,874	6,019,579
Incremental expenses												
Indirect salaries:												
Admin/Support staff (1 SPT tech'n)		16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	168,000
Teaching salaries:												
Full time - number required		1	2	4	4	4	4	4	4	4	4	
- cost @	$129,061	129,061	258,122	516,244	516,244	516,244	516,244	516,244	516,244	516,244	516,244	4,517,135
Part time - hours per week req'd		12	21	17	17	17	17	17	17	17	17	
- cost @	see below	32,781	57,367	46,440	46,440	46,440	46,440	46,440	46,440	46,440	46,440	461,669
One time costs - facilities		0										0
fitup/equipment		0										0
Other startup		10,000										10,000
Operating expenses		0										0
Capital expenses				263,585								263,585
sub-total		188,642	332,289	843,069	579,484	579,484	579,484	579,484	579,484	579,484	579,484	5,420,389
incremental cash inflows		-54,340	89,996	-160,195	103,390	103,390	103,390	103,390	103,390	103,390	103,390	599,190
	CTO%		21%	-23%	15%	15%	15%	15%	15%	15%	15%	
Net present value @	8%		$326,983									

Notes:

1. Grant based on existing Humber 3D Animation program
2. Tuition based on existing Humber 3D Animation program
3. 95%/5% domestic/international enrolments assumed
4. Based on lvl 1 enrolment total of 24
5. assumes no program specific fee

INPUT FIELDS				
Tuition - domestic	lvl 1/2		$2,783.00	
(per term)	lvl 3/4		$2,783.00	
	lvl 5/6		$2,783.00	
Grant	all levels		$3,809.00	
(per term)				
Program specific fee	all levels		$0.00	
Tuition - international	lvl 1/2		$5,925.00	
(per term)	lvl 3/4		$5,925.00	
	lvl 5/6		$5,925.00	
Enrolment split	domestic		95%	
	international		5%	
Part time / Partial load	split %	PT	30%	
		PL	70%	
	hrly rate	PT	$57.20	
	(incl. ben's)	PL	$105.57	
Number of weeks for PT/PL			30	
YEAR 1				
Enrolment table	Program name			
	Domestic	Int'l		
level 1 - Fall	23	1	24	
level 2 - Winter	21	1	22	
level 3	0	0	0	
level 4	0	0	0	
	44	2	46	
Tuition rates				
	Domestic	Int'l		
level 1	2,783.00	5,925.00		
level 2	2,783.00	5,925.00		
level 3	2,783.00	5,925.00		
level 4	2,783.00	5,925.00		
Grant values				
	Domestic	Int'l		
level 1	3,809.00	0.00		
level 2	3,809.00	0.00		
level 3	3,809.00	0.00		
level 4	3,809.00	0.00		

YEAR 2				
Enrolment table	Program name			
	Domestic	Int'l		
level 1 - Fall	23	1	24	
level 2 - Winter	21	1	22	
level 3	20	1	21	
level 4	19	1	20	
	83	4	87	
Tuition rates				
	Domestic	Int'l		
level 1	2,783.00	5,925.00		
level 2	2,783.00	5,925.00		
level 3	2,783.00	5,925.00		
level 4	2,783.00	5,925.00		
Grant values				
	Domestic	Int'l		
level 1	3,809.00	0.00		
level 2	3,809.00	0.00		
level 3	3,809.00	0.00		
level 4	3,809.00	0.00		

YEAR 3				
Enrolment table	Program name			
	Domestic	Int'l		
level 1 - Fall	23	1	24	
level 2 - Winter	21	1	22	
level 3	20	1	21	
level 4	19	1	20	
level 5	18	1	19	
level 6	18	1	19	
	83	4	125	
Tuition rates				
	Domestic	Int'l		
level 1	2,783.00	5,925.00		
level 2	2,783.00	5,925.00		
level 3	2,783.00	5,925.00		
level 4	2,783.00	5,925.00		
level 5	2,783.00	5,925.00		
level 6	2,783.00	5,925.00		
Grant values				
	Domestic	Int'l		
level 1	3,809.00	0.00		
level 2	3,809.00	0.00		
level 3	3,809.00	0.00		
level 4	3,809.00	0.00		
level 5	3,809.00	0.00		
level 6	3,809.00	0.00		

YEAR 4				
Enrolment table	Program name			
	Domestic	Int'l		
level 1 - Fall	23	1	24	
level 2 - Winter	21	1	22	
level 3	20	1	21	
level 4	19	1	20	
level 5	18	1	19	
level 6	18	1	19	
	83	4	125	
Tuition rates				
	Domestic	Int'l		
level 1	2,783.00	5,925.00		
level 2	2,783.00	5,925.00		
level 3	2,783.00	5,925.00		
level 4	2,783.00	5,925.00		
level 5	2,783.00	5,925.00		
level 6	2,783.00	5,925.00		
Grant values				
	Domestic	Int'l		
level 1	3,809.00	0.00		
level 2	3,809.00	0.00		
level 3	3,809.00	0.00		
level 4	3,809.00	0.00		
level 5	3,809.00	0.00		
level 6	3,809.00	0.00		

Game Design and Development Advisory Committee Meeting
Thursday, May 30, 2013
5:30 pm to 7:30 pm
H1005, Board Room

Fanshawe Members:	Dana Morningstar, Chair	
	Steve Torrens, Curriculum Consultant	
	Rob Reichhardt, Faculty	
	Dan Rickard, Faculty	
	Chris Butts, Technician	
	Dawn Gratton, Recording	
External Members:	Andrew Yu, Digital Extremes	Cliff Daigle, Digital Extremes
	Kol Crosbie, Digital Extremes	Samra Tangestanian, Digital Extremes - Absent
	Andrejs Verlis, Digital Extremes	Dan Hunter, Digital Extremes
	Jeff Evans, Antic Entertainment	Chris Elliott, Big Blue Bubble
	Ryan Pacheco, Big Viking	David Boyle, Big Viking - Absent
	Mark Maia, Big Blue Bubble	Jamie Boylan, Big Blue Bubble
	Brad Mills, Slightly Social	Dennis Cawson, Digital Extremes - Absent
	Milton Pangourelias, Digital Extremes	Richard Gambel

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1. Welcome.

2. **Agenda Items**

2.1 a) Welcome, Introduction and Overview.

- Lead by D. Morningstar.
- New program scheduled to hopefully start maybe 2014 or 2015 at the latest.
- It will be a 3 year program.
- Panel was invited to introduce themselves, where they went to school and what program they took to prepare them for this industry.
- Sheridan College 3 year program.
- Sheridan College - Classical animation.
    - With an optional fourth year in film.
- Sheridan College – 4 year degree program.
- Studied Industrial Animation.
- Seneca College – studied animation.
- Sheridan College - Art Fundamentals.

- Classical Arts Program - 8 months.
- Studied 3D Game Design.
    - 3D Artist – easier to find a position as this in the gaming industry.
- Bachelor of Arts in Landscape Design then went on to take 3D art production format.
    - Started as an environmental artist or layout artist.
    - Level designers – currently a void for people in this position in the industry.
- Seneca College – Digital Media Arts program.
- Brock University - Film Production and Screen Writing.
- Seneca College – 2D Power Animation.
- No formal education - self-taught.
- Seneca College– Took ILT which later became DMA and now changed titles again.
- Took 3D Animation, Life Drawing, 2D Animation, Lighting.
- Self-taught – started as a pixel artist.
    - Started with creating educational games.
    - Cinematographer.
- Sheridan College – Computer Science.
- Fanshawe College – 3D Animation Program.
- Fanshawe College – Graphic Design.
- Self-taught 2D Animation.
- Fanshawe – 3D Animation.
- Sheridan College
- Seneca College – Animation for TV.
- Worked in Motion Capture.
- Environment Artist.
- Sheridan College – 3 year Illustration Program.
- Started out doing a lot of freelance work.
- Self-taught 3D Animation
- Senior Creative Artist.

b) Roles and Responsibilities.
- Not discussed.

2.2 Program Development Overview – PowerPoint Presentation.

a) Fanshawe College Programs.
- Lead by R. Reichhardt.
- 3D Animation and Character Design – post grad – film and gaming.
- Interactive Media Design and Production.
- Game Development – Advanced Programming – strictly programing – post grad.
- Special Effects and Editing – Cinema 40 – some 3D Animation.

b) Program Development.
- Lead by S. Torrens.
- Process for the program development was described through a flow chart – see PowerPoint presentation.
- Recommendations from this meeting will go towards developing the program outline.
- Once the program outline is ready, Fanshawe will ask the committee members to review and provide feedback.

c) Program Description and Goals.
- Program Description:
    - Lead by S. Torrens.
    - “This three year, advanced diploma is structured to provide training in principles and techniques required for the expanding game design and development industry. With a focus on art and design, students will learn design software, modeling,

texturing, lighting, and animation skills. The program will cover the art of character, level and game design, working primarily with three-dimensional environment editors and real-time game engines as well as two-dimensional rich-media prototyping tools." *Description taken from the PowerPoint presentation slideshow.*

- Program Goals:
  - Lead by S. Torrens.
  - The successful completion of this program will enable the graduate to:
  - Design unique gaming environments, levels and characters.
  - Develop, test, and evaluate procedures for the creation, design and development of games.
  - Create games by applying programming concepts.
  - Develop, debug and modify code to meet design specifications for games.
  - Conceptualize and create 2D and 3D artwork for use in games.
  - Create and produce digital components, games and documentation using a variety of computer platforms.
  - Choose game strategies and patterns based on an analysis of past and present trends.
  - Contribute as an individual and a member of a team and provide leadership as required.
  - Complete all work in compliance with Canadian laws and policies.
  - Produce and present business communication, documentation and information effectively and accurately in written and verbal form for game creation and development.
  - Adapt game designs to meet requirements of the current marketplace.
  - Produce animated cut-scenes and sequences in the form of digital video and event-driven real-time animations utilizing a game engine.
  - Support the creation of pre-production and production elements of game design utilizing observational skills, technical skills, and traditional and digital media.

  Goals taken from the PowerPoint presentation slideshow.
- A company does not want a programmer who is an artist as well.
- The two positions are very different and need to be separated.
- It is ok for an artist to understand the role of a programmer and how they help build a game but their focus needs to be on art and not programming.
- You don't find someone who is an expert in both areas.

2.3 Panel Discussion Questions.

a) Is there significant local, regional, provincial, national and/or international need for more skilled employees in this field?

- Yes.
- There are various types of games that can be created.
  - AAA Game Spheres – big games like Call of Duty - need people.
  - Causal Games.
  - Indy Games.
  - Mobile Games.
  - Mid-core Games.
  - Commercial Games or Animation.
  - Movie Advertising.
- Specialization is big in this industry and is needed within the new program.
- Big companies are looking for employees who have a very specific talents or knowledge base.
- Some smaller companies need an employee to be versatile.
- The Video Game Industry brought all but two people to London, Ontario.

    - Industry kept the two Londoners from leaving London.
- Seneca College and Sheridan College are educational leaders in this field in their opinion.
- University of Waterloo – Leader in the Video Game Programming education.
- Western University and University of Waterloo both have great video game programming degree programs.
    - London businesses hire programmers who are from either of these two Universities.
- General sense or understanding programming is good but extensive knowledge is not needed in-depth for a game artist.
- Companies can't get someone who can do both art and programming well.

b) What specific skills and knowledge would a graduate of the proposed program need in order to be employable at an entry level, and have promotion potential, within this field?

- By the end of the program, a graduate should be able to reproduce in the AAA product currently on the market shelf – look at a current game and say I can do that.
- Should be passionate about video games.
- Should have a good work ethic.
- Should be able to successfully demonstrate conflict resolution.
- Work successfully with a team and interactive medium.
- Be professional and respectful to others.
- Understand the roles of other team mates.
- Everyone has to work together.
- Understand the roles of each member of the team without doing their job.
    - Lots of overlap.
- Applicants to this program should already be artists.
    - An applicant screening process to ensure they have artistic talent would be of great benefit.
- Sheridan College screens their applicants to ensure they have artist talent.
- It is important for Fanshawe to build a brand for this program
    - It has to have a level of competition to build the gaming standard.
    - Graduates need to be able to demonstrate themselves to be competitive with Sheridan and Seneca graduates.
- Life Drawing is a necessary course that needs to be mastered by a graduate.
- Setup projects where students must collaborate with each other and different programs including programmers.
    - It is so important that students know how to work with everyone on a project.
    - The industry is all about project based work.
- Working in the industry can be a very humbling experience.
    - You don't always get to work on what you want.
    - Example: Building girl games such as "My Little Pony".
    - You don't always get the AAA games such as "Call of Duty" to work on or games that are of personal interest.
- Qualitative art skills are a necessary of an applicant.
- Fundamental art skills need to be taught.
- Technicians who can use the software but don't have the art fundamentals will not be successful.
- Need someone who can grow creatively.
    - Need someone who is more than a technician and an expert of software.
    - Technicians can reproduce game art that has already been created.
    - Artists have creativity that cannot be taught.
    - Artists provide new ideas and new creativity to a company.
    - Without this contribution, a graduate will not be successful.
- A graduate from this program needs to have an art portfolio that successfully demonstrates

their knowledge and understanding of the fundamentals of art.

- Problem solving skills are a must.
- Support was offered to the presented list of skills and outcomes a student must have.
    - List is good.
    - Just make sure that students are learning specific skills to become a game artist and not a programmer.
- Graduates must be able to be self-motivated to continue lifelong learning.
    - Must learn how to continue to learn. – i.e.: through tutorials online.
- To survive in the business you must be able to problem solve including with new software.
    - Show a desire to learn beyond school.
    - Programs and technology are changing very quickly – must be able to be self-motivated to keep learning.
- Environmental art is becoming more important – landscape and architectural designs.
    - Learning the basics of these would be beneficial.
- Environmental Psychology – learning how the gamer perceives space and perspective of someone's interaction with space.
- There are a lot of subconscious cues to help lead the gamer through the game that a designer and artist have to know how to create.
- Top three weakest things new employees have:
    - Knowledge of composition, balance and proportion.
- Detail in the art of a game comes from a person who has strong fundamentals in these three areas.
- When teaching, use more gaming examples instead of art history concepts.
- Identify those who have the knowledge of these three areas as artists.
- Define what you want to do in this program.
- Artist, specialist, environmentalist, 3D – what does a student want to specialize in?
- Game criticism needs to be taught.
- Define why the games are successful.
- Teach the psychology of games, game history and why and how games have developed.
- Don't want an employee who can only knock off of trendy games and characters.
    - Need someone who has creativity.
- Must have their own portfolio of their own characters and designs that are unique.
- Portfolio should be tailored to the job they are applying for.
- www.electronicarts.com
- Look at job descriptions and departments within a company – Where do they want to be?
- Generalist portfolios will not get them a job at big companies.
- If you want a specific position, you must have a specific portfolio (i.e.: lighting).
- Game Design is very difficult to learn.
- The name of the program is very deceiving.
    - Game Design is something a student from this program would not graduate and be hired to do.
- Suggested to keep the first two years general and basic to art design then have students specialize in the third year.
- Final year – performance develop, form studios and create Indy games.
- Game scripting should be taught.
- Fundamental art skills will never change so first year of general level fundamental teaching would be great.
- Artists can't just get into the industry with talent. You need to have technical knowledge to get into the business in addition to artist talent.
- Students need to understand what works in a game and what doesn't.
    - Game comparison.
    - Understanding what is needed to have a game run.
- Sheridan College – arts first and wide skilled – fundamentals can't be rushed and this program is successful at teaching their students how to be versatile and apply the

fundamentals of art to gaming.

- You need to be an artist first and then an animator with software second.
- Need to know where you want to specialize.
    - 3D game in AAA Company or mobile 2D game.
- Don't believe that creativity in the industry is exhausted.
- A video game is about creating balance and fun for the user.
- Learn about what develops player retention.
- Must be good gamers to understand design elements.
- Is everyone to graduate as a designer? – In a company only one guy does this.
- The industry needs artists.
- Game design evolves from experience and cannot be taught.
- There are three parts to a video game company
    - Programmers, Designers, Artists
    - They are silos that must work together.
- It is hard to get hired as a game designer.
- Course name is misleading – game design.
- Game design is a very specific job.
- Art and design are completely different and completely different departments within a company.
- Designers like puzzles, has psychological understanding of the gamer, understands narrative development and is an excellent story teller.
- Change is expected between different areas of the art as the game is being developed.
    - i.e.: Environmental development and designing space.
    - Being able to look at your art work and determine what aspects are fixed and what are flexible (can be moved or changed to incorporate other people's art work).
- When working with art you have to find the harmony.
    - Find design and art harmony.
- Artists need to understand the roles of a designer and programmer.
- More art jobs are available than design – 5 to 1 ratio.
- Generalist in the occupation but not the industry.
- Quality assurance, programming or art are the three entry level positions.
- Focus on programming or art and then develop designers after.
- A game designer position is a dream job that is very hard to obtain.
    - Comes from experience and is born from artists or programmers.
    - It is not realistic to think that graduates from the program are going to get jobs as game designers.
    - Teach them the elements of game design.
- Students need to know Unity.
- Need to know 2D animation as much as they do 3D animation.
- They need to have the tools to design characters.
- Know how to move art to Unity and learn how their art responds in movement.
- More 2D animation for mobile causal art is needed.
- In a portfolio, employers want to see both 2D and 3D art.
    - You can't hide flaws in 2D.
- Need to know both 2D and 3D animation.
    - Flash animation.
    - Pixel.
- One specific entry level job would be a junior lighter.
- User interface needs to be taught.
- Lighting taught by technical theatre.
    - Team agreed that the professor that teaches theatre lighting could teach game lighting.
    - Same elements and principles apply.
    - Prefer painting art teachers to teach the lighting of artwork.

- Soft skills needed:
    - Communications.
    - Collaboration – would rather work with a great employee with medium skills over someone who is top of the class and is difficult to work with.
    - Great attitude.
    - Works hard.
- Prepare students for what the business is really like.
    - Long hours and high pressured deadlines.
- Have Pro days where employers critique work or work with the students to develop projects.

What would you call this program?

- Game Art

c) What specific needs does your industry have, that our program could serve?

- Not discussed in detail.

d) How do you see the relationship between this proposed program and your mission?

- Not discussed in detail.

e) Trends – What are the technologies and developments that will impact students and employers?

- Can't possibly know where Technology will be in three years.
    - It is changing too quickly.
    - So personal growth and innovation is a must from students.
- Train a good artist that can adapt.
- No one knows where technology is going and what the next big thing is going to be.
- Schismatic population.
- Larger spaces – i.e.: appropriate use of forest species.
- Concept design – create projects that start from concept and see it through to the end.
- Suggested to have a terrible model and fix it.
- 2D Animation is coming back.
    - Mobile games are very popular.
- Pixel is coming back.
- Rapid prototyping.
- Kinect – motion capture
    - Xbox 1 is coming out.
- Anyone can make a game – software and hardware is free or more affordable.
- More diverse range of games.
- Foresee smaller teams who work on passion projects (gender equality, etc.).
    - Using nontraditional voices.
- AAA games are more expensive for the gamer to purchase.
- Six month teams assembled to create app games for Apple, etc.

f) In your opinion, are internship placements beneficial to an employer? If so, would your company be willing to participate in student internships?

- Time lines – if it is only 2 weeks it is not worth it to the business or the student.
- You need them at least 4 months.
- It has to be a semester basis.
- It needs to be a significant amount of time to make it worthwhile to the employer and student.
- Co-op students – paid positions and everyone needs to have an opportunity for a Co-op

position.
    - Currently only one company present offers internships and that is to programmers from Western or Waterloo only.
- Internships – are unpaid.
- It maybe too busy at times for a student to be added.
- Finding studio space for a student to work is very difficult when they are busy.
- QA testing – exposure at different levels of the game development may be a good opportunity.
- Pro days are better – bring the professionals in to the students and let them work with the students for a day or two.
    - Would give the companies the opportunity to see the talent of the students.

2.4 Next Steps, Conclusion and Questionnaire.

- Lead by S. Torrens.
- Will be offering different opportunities for input from committee external members.
- Minutes will be distributed to the team when they are done.

3. Adjournment – meeting adjourned at 8:05pm.

September 2013 - OCAS
Game Development - MTCU 61900

	APPLICATIONS					
	2008	2009	2010	2011	2012	2013
Algonquin	348	376	352	368	414	410
Durham	219	231	251	183	195	190
George Brown	0	374	617	651	775	923
Niagara	0	0	0	167	206	231
	567	981	1220	1369	1590	1754

	ENROLMENT				
	2008	2009	2010	2011	2012
Algonquin	80	96	96	157	169
Durham	24	25	28	28	27
George Brown	0	95	127	131	235
Niagara	0	0	0	48	70
	104	216	251	364	501

	ENROLMENT - INTERNATIONAL				
	2008	2009	2010	2011	2012
Algonquin	0	1	3	1	2
Durham	0	1	0	0	0
George Brown	0	3	5	4	9
Niagara	0	0	0	2	3
	0	5	8	7	14

5 yr comparison (2012 vs 2008) - Overall	180%	382%	-
2012 vs 2011 - Overall	16%	38%	100%

WHERE IS FANS CATCHMENT GOING?

	APPLICATIONS					
	2008	2009	2010	2011	2012	2012
Algonquin	13	8	4	2	4	6
Durham	8	7	8	1	3	4
George Brown	0	8	13	9	8	14
Niagara	0	0	0	7	9	8
	21	23	25	19	24	32

	ENROLMENT				
	2008	2009	2010	2011	2012
Algonquin	2	1	0	0	0
Durham	1	0	1	0	0
George Brown	0	1	3	1	0
Niagara	0	0	0	5	4
	3	2	4	6	4

APPLICATIONS BY CATCHMENT AREA

	ALGONQUIN						DURHAM						GEORGE BROWN					NIAGARA		
	2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2011	2012	2013
ALGO	171	198	196	231	222	221	9	10	11	12	9	7	13	17	15	13	13	4	8	6
CAMB	4	5	3	2	4	3	1	0	0	1	1	0	2	2	2	4	2	0	0	1
CANA	4	1	5	2	8	4	4	2	1	1	3	1	1	2	1	2	3	0	4	2
CENT	1	1	0	0	0	0	5	9	9	10	9	7	35	78	70	85	119	0	0	1
CONF	11	10	2	2	5	4	5	2	1	1	2	2	2	3	3	6	2	0	3	3
CONS	11	5	2	6	5	10	8	6	5	7	5	3	11	20	26	31	27	12	8	16
DURH	13	11	12	4	9	9	97	91	106	74	71	82	30	37	39	47	60	7	7	11
FANS	13	8	4	2	4	6	8	7	8	1	3	4	8	13	9	8	14	7	9	8
GBTC	0	2	2	2	1	3	2	4	2	2	1	3	28	62	89	97	100	1	0	0
GEOR	15	13	13	12	11	23	10	17	15	4	8	17	20	39	23	28	42	7	10	22
HUMB	5	1	1	0	1	3	3	0	3	1	2	2	22	36	40	66	68	0	1	1
LAMB	0	0	1	0	4	0	0	1	4	0	3	0	1	7	2	5	0	4	6	1
LOYT	7	16	8	5	15	11	7	10	12	6	3	5	9	7	4	4	6	1	4	2
MOHA	2	5	3	0	3	5	4	2	4	2	3	4	11	25	14	18	13	17	18	17
NIAG	8	11	7	7	4	5	10	5	11	7	5	3	13	14	14	14	17	80	97	97
NORT	6	5	3	3	13	6	6	3	0	2	5	3	1	1	1	6	3	1	5	5
SAUL	1	0	1	1	1	0	1	0	1	0	1	0	3	2	2	1	0	3	1	0
SENE	9	9	8	7	5	2	13	18	14	12	16	17	74	111	152	164	211	4	2	8
SHER	10	10	10	12	8	12	6	14	11	8	7	5	73	109	115	143	177	7	9	15
SLAW	32	41	45	42	46	49	3	6	9	9	11	9	4	7	6	2	9	3	2	6
SSFL	7	3	3	8	14	9	13	19	16	17	22	11	4	8	9	8	14	2	3	3
STCL	4	3	5	5	6	6	1	1	2	4	2	3	4	11	4	7	7	5	6	5
UNKN	2	2	2	3	4	2	2	3	4	1	0	0	2	2	5	6	4	2	0	1
OUTSIDE ONT	12	16	16	12	21	17	1	1	2	1	3	2	3	4	6	10	12	0	3	0
	348	376	352	368	414	410	219	231	251	183	195	190	374	617	651	775	923	167	206	231

ENROLMENT BY CATCHMENT AREA

	ALGONQUIN						DURHAM						GEORGE BROWN					NIAGARA		
	2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2011	2012	2013
ALGO	48	65	73	110	111		1	0	1	0	0		0	1	0	0		1	0	
CAMB	1	2	0	0	0		0	0	0	0	0		0	1	1	0		0	0	
CANA	0	0	1	1	3		0	2	0	1	0		0	0	0	1		0	1	
CENT	0	0	0	0	0		0	0	0	2	1		6	14	18	30		0	0	
CONF	6	1	0	1	1		0	0	0	0	0		1	0	2	2		0	0	
CONS	1	2	0	0	2		1	0	0	0	1		4	3	7	10		3	4	
DURH	1	0	0	2	1		15	10	16	15	13		9	6	5	12		1	0	
FANS	2	1	0	0	0		1	0	1	0	0		1	3	1	0		5	4	
GBTC	0	0	0	0	0		0	1	0	0	0		13	10	26	45		0	0	
GEOR	3	2	1	6	2		0	3	2	0	0		6	9	4	4		1	5	
HUMB	0	0	0	0	0		1	0	1	0	0		10	10	10	23		0	0	
LAMB	0	0	0	0	0		0	0	0	0	0		1	0	0	1		3	3	
LOYT	1	2	2	1	7		0	1	2	2	1		1	1	0	1		0	0	
MOHA	0	1	0	0	0		0	0	0	0	0		3	3	1	4		6	10	
NIAG	0	1	2	3	0		2	0	0	0	0		3	5	0	2		22	38	
NORT	0	2	0	2	7		1	0	0	0	0		0	0	0	0		0	0	
SAUL	1	0	0	0	0		0	0	0	0	0		0	1	0	0		0	0	
SENE	0	0	0	3	1		1	5	1	2	3		16	30	23	48		1	0	
SHER	0	0	0	1	4		1	0	0	1	1		18	27	29	44		2	2	
SLAW	12	8	7	17	16		0	0	0	2	0		0	0	2	1		1	1	
SSFL	2	0	2	1	5		0	3	2	3	6		0	1	0	1		0	0	
STCL	0	0	2	1	3		0	0	0	0	0		1	1	0	3		1	1	
UNKN	0	1	0	0	0		0	0	2	0	1		1	0	1	2		0	1	
OUTSIDE ONT	2	8	6	8	6		0	0	0	0	0		1	1	1	1		1	0	
	80	96	96	157	169	0	24	25	28	28	27	0	95	127	131	235	0	48	70	0

FANSHAWE COLLEGE

CONSULTATION REPORT FOR NEW PROGRAMS & MAJOR PROGRAM REVISIONS

Title of Proposed Program:	**GAME DESIGN AND DEVELOPMENT**
Submitted By:	**Dana Morningstar, Chair, Contemporary Media**
MTCU code:	

The Academic Program Planning Sub-committee (APPS) has approved the new program idea. The following consultations are required before the full business plan is submitted to APPS (Stage Gate 2).

1. Area: Academic Division - Academic Studies	Business Plan: 3.02	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		
Issue(s) Unresolved:		

2. Area: Academic Division - General Studies	Business Plan: 3.02	Not Affected ❒
Date of Meeting: Sept 24 and Oct 7	Participants: Mike Van Bussell, Steve Patterson, Paul Meahan, Holly Tunstill	
Results of Discussion: Service area ready to support – SLLS feedback Paul Meahan – Gen Ed.I have read through Appendix E of the Business Plan for the proposed Advanced Diploma in Video Game Design and Development and can confirm that the proposed number (4) of General Education courses satisfies College Policy 2-B-02—3.2.3: "Ministry-approved Ontario College Advanced Diploma programs include a minimum of four General Education courses, with at least two of the courses obtained from General Education elective offerings."		
Issue(s) Unresolved:		

3. Area: Academic Division - Other Affected Division(s)	Business Plan: 3.02	Not Affected ❒

Date of Meeting: Sept 24/2013	Participants: Kevin Weaver
Results of Discussion: I support the business plan and I do not believe the School of IT will be affected by this program. It will strengthen the programming cluster at CDPA and create new opportunities for synergies between the programming students and the design and development students.	
Issue(s) Unresolved:	

4. Area: Centre for Academic Excellence	Business Plan: 6.04	Not Affected ❒
Date of Meeting: Sept 27/13	Participants: Tracy Gedies	
Results of Discussion: I spent more of my time looking at the CVS content in the Business Plan. Can you confirm whether you've vetted the proposed program outcomes through Tim or Andre? If you did and assuming they are in order, you'll need to amend some of the documentation in the CVS section – specifically Appendix A1. This section is using the originally program learning outcomes not the proposed new ones. I'll spend a bit more time this weekend reviewing to see if there is anything else. REPLY: Tim Classen has given tentative confirmation of CVS/ as well curriculum outcomes maps have been revised prior to October 10, 2013 on recommendation of Tracy Gedies after further review of document - DM		
Issue(s) Unresolved:		

5. Area: Centre for Research and Innovation	Business Plan: 6.04	Not Affected ❒
Date of Meeting: Sept 23/13	Participants: Dan Douglas	

Results of Discussion:

Unless I missed something, there does not appear to be overt reference to research in this business plan. I can certainly see areas (such as the capstones) where it could be occurring, but this has not been stated in the learning outcomes. I am not sure what the next steps are to address this issue, but I am happy to meet with you or others to resolve this issue. It would be good to have Tracy Gedies (or one of the curriculum consultants) also participate in our meeting.

Reply by email:

Page four has this information:

Faculty lead projects are the key to having students love research projects.

Recently the Interactive Media programs had Professor Rob Haaf win the college wide research and innovation award which shows the talents of Rob and whole faculty team for bringing research projects to life and obtaining funding. Projects involve educational, gamification, animated films, playable games, adaptive technologies, app development, and medical related educational assets.

In the cluster of programs where this program would fit there is already a tradition of client centred, experiential and capstone projects. The area has used internal and external research funds to embed research concepts in curriculum. There is a coordinator role in the department called “Project Integration Coordinator” to assist faculty in developing these types of learning activities and to act as liaison with CRI – Centre for Research and Innovation and with outside funders.

Note - Steve Torrens has been the CAE curriculum rep through the business plan and CVS process. I will mention your comment to Steve.

Issue(s) Unresolved:

6. Area: Continuing Education	Business Plan: 6.04	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		
Issue(s) Unresolved:		

7. Area: Regional Campuses	Business Plan: 6.04	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		
Issue(s) Unresolved:		

8. Area: Co-operative Education (Co-op)	Business Plan: 6.04	**Not Affected X**
Date of Meeting: Sept 24/13	Participants: Darlene O Neill and team	

Results of Discussion:

As requested here is the Co-op requirement on the proposed program. Although this new program does not affect Co-op, I have solicited feedback form all of my team who work with your area and some interesting comments are below for your info only: Something to think about; if all the jobs advertised are looking for 3-5 years' experience, perhaps a Co-op component to the program where the students actually gets paid work experience during his/her learning experiences may be the "step up" they require to overcome this requirement that employers are currently seeking.

It is hard to comment as to where the jobs will be in 3 years for anyone yet alone 41 prospective graduates of this proposed program.
A Review of the Ontario Graduate Employment report for the 2011 grads (the most recent available online) to see how the grads from the other Colleges who offer similar programs have done found that the results for working related were all less than 45% so that didn't show all that favourably. (See http://www.tcu.gov.on.ca/pepg/audiences/colleges/serials/eprofile09-10/profile10.pdf page 86).

In terms of jobs that found online, companies such as Big Blue Bubble (London), Big Viking Games (Toronto) and London's Digital Extreme are all currently hiring for Game Developers and other associated gaming jobs. A search of 'Game Developer' jobs in Ontario netted 79 jobs and in many cases these jobs cross over with the programming and development of gaming rather than the design and development industry therefore are more related to the Game Development program outcomes from the School of IT. For most all of the jobs, the requirements were in the range of 3-5+ years of experience. No entry level jobs were identified.

It is an emerging market place which London and ultimately Fanshawe hopes to tap into. Add to that, that LEDC is working to develop and attract employers and like businesses, hopefully in 3 years' time there will be an audience to meet this need.

Thanks for the opportunity to comment and share
Good luck with the proposal!

Issue(s) Unresolved:

9. Area: Facilities Management (Space Requirements)	Business Plan: 6.01	Not Affected ❒
Date of Meeting:none e-consult	Participants: SHarrington, HBakker	

~~Results of Discussion~~: Observations - assessment does not take into consideration impact of Online Gaming or any other programming not currently evaluated or contemplated as part of this assessment. - in absence of any consultation, there appears to be gaps or inconsistencies in data - in section 6.01 (pg 9), there is reference to 1 PT IT staff requiring increased support without being further defined; no support staff identified as a requirement in Appendix G: MultiYear Budget. - in section 6.03 HR resources identify up to 4 full-time and several part-time and partial load academic faculty, yet only 1 FTE and 10h/wk PT identified in all years in Appendix G: MultiYear Budget, - Appendix D identifies no hours for any spaces other than classroom instructional; classroom hours do not translate to room scheduling requirements and impact on existing scheduling-
Issue(s) Unresolved: - Space requirements cannot be adequately assessed with current information provided - FMCS recommendation that scheduling requirements be restricted to existing academic learning space currently assigned for such purpose - FMCS recommendation that employee space assignment be limited to existing Flr 5 office space - space requirements and budgeting subject to change upon further review and assessment

10. Area: Timetabling and Scheduling (Timetabling and Scheduling)	Business Plan: 6.01	Not Affected ❒
Date of Meeting: Date of Meeting: Sept 25/13	Participants: J. Potts, T. Dobson, S. Firth	
Results of Discussion: No appreciable increase in ongoing scheduling workload		
Issue(s) Unresolved: Space availability for both classroom (labeled as “non-computer lab”) and computer lab activity as well as the siting for additional lab in year 3. We are concerned that there will not be enough classroom hours available by year 3 and that we may be depending on the fit up of a second downtown location.		

11. Area: Financial Services (Budget Projections)	Business Plan: 6.07	Not Affected ❒
Date of Meeting: Sept 25/13	Participants: J. Potts, T. Dobson, S. Firth	
Results of Discussion: Projections modified based on data in the business plan as well as modeling from Humber 3D Animation program. Note: revised financials from originals circulated		
Issue(s) Unresolved: Enrolment split of Int’l/Domestic to be confirmed by School. Is the addition of 1 SPT Technician enough by the time we get to a full three years?		

12. Area: Human Resources (Staffing Plan)	Business Plan: 6.03	Not Affected ❒
Date of Meeting:	Participants:	

Results of Discussion:
Issue(s) Unresolved:

13. Area: Information Services (Technology Requirements)	Business Plan: 6.01	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		
Issue(s) Unresolved:		

14. Area: International Centre	Business Plan: 6.04	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		
Issue(s) Unresolved:		

15. Area: Library (Learning Resources)	Business Plan: 6.02	Not Affected X
Date of Meeting: Sept 2013	Participants: Linda Crosby	
Results of Discussion: I have filled in App. H for Library & Media Services. I have indicated 'Not affected' since there appears to be nothing to be done other than what normally happens for a new program. This work usually entails a request for information by the program to the library of items & associated costs required to support the curriculum. At that time, I would be able to prepare a report supporting any funding that should be included by the program for start-up costs.		
Issue(s) Unresolved:		

16. Area: Reputation and Brand Management	Business Plan: 6.05	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		

Issue(s) Unresolved:

17. Area: Registrar's Office (Admission Requirements)	Business Plan: 3.01	Not Affected X❒
Date of Meeting: October 2013	Participants: Janice Lamoureaux	
Results of Discussion: We support this initiative – verbal conversation		
Issue(s) Unresolved:		

18. Area: Student Services	Business Plan: 3.01	Not Affected ❒
Date of Meeting:	Participants: Robert Kitchen – Student Success Heather Cumings	
Results of Discussion: SASS should be able to support this program. -Should increase future demand on SSA, may drive business case for FT SSA at CDPA with program growth. Initial and year one impact I assume will be minimal. These academic support services would need to be scaled to match program growth. - Peer tutoring support may be required for students in this program. We have the capacity to support this remotely. (Online intake forms as well as online payment options) - CDPA space does not have dedicated Learning Centre Space. I am not of the understanding these students are currently big users of this space or have needs we support..		
Issue(s) Unresolved: Growth of services required with enrollment growth. Identified issue but not defined in terms of resources or planned service growth. This should not be seen a barrier to prevent this from moving forward.		

18. Area: Registrar's Office (Enrolment Projections)	Business Plan: 6.06	Not Affected X❒
Date of Meeting:Oct 2013	Participants: Janice Lamoureaux	
Results of Discussion: We will support this initiative – verbal conversaton		
Issue(s) Unresolved:		

19. Area: Registrar's Office (Tuition Fees)	Business Plan: 6.08	Not Affected X❒
Date of Meeting:October 2013	Participants: Janice Lamoureaux	
Results of Discussion: We support this initiative – verbal conversation		
Issue(s) Unresolved:		

20. Area: Reputation and Brand Management / Recruitment (Student Demand)	Business Plan: 5.01	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		
Issue(s) Unresolved:		

21. Area: Counseling and Accessibility Services	Business Plan: 6.04	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		
Issue(s) Unresolved:		

22. Area: Contract Training Services	Business Plan: 5.02	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		

Issue(s) Unresolved:		
23. Area: Other Consultation, as required	Business Plan:	Not Affected ❒
Date of Meeting:	Participants:	
Results of Discussion:		
Issue(s) Unresolved:		

24. Dean's Comments

I totally support this proposal. There is ample evidence to support programming of this nature – both in terms of successful offerings at other colleges, and the labor market data to predict the success of our grads.

This program totally fits into the concept of the Digital Media Centre at our new downtown campus and will fit into the research strategy proposed for the Interactive Media cluster of programs (potentially branded as Reactr).

Our biggest concern will be space – particularly if the program is as successful as we hope it might be, and specifically as we enter year 3. There is space at the existing CDPA footprint to successfully launch the program. All areas that did not respond were provided ample time to provide feedback – initially one full week, with that time frame extended by two weeks. I can only assume their silence as endorsement of the program proposal.

Of note – both the AVPA and I have enjoyed tremendous success with programming of this nature at institutions we previously worked at. Fanshawe is late coming to the table and we need to "GET IN THE GAME"!

I verify that the above consultations have occurred and that all issues have been resolved, with the exception of those noted above.

(Signature)

October 9th, 2013

(Date)

2013

SALES, DEMOGRAPHIC AND USAGE DATA

ESSENTIAL FACTS

ABOUT THE COMPUTER AND VIDEO GAME INDUSTRY

entertainment® software association

“No other sector has experienced the same explosive growth as the computer and video game industry. Our creative publishers and talented workforce continue to accelerate advancement and pioneer new products that push boundaries and unlock entertainment experiences. These innovations in turn drive enhanced player connectivity, fuel demand for products, and encourage the progression of an expanding and diversified consumer base.”

—Michael D. Gallagher, president and CEO, Entertainment Software Association

WHAT'S INSIDE

WHO IS PLAYING

AT PLAY

THE BOTTOM LINE

WHO WE ARE

OTHER RESOURCES

The 2013 Essential Facts About the Computer and Video Game Industry was released by the Entertainment Software Association (ESA) at E3 2013. The annual research was conducted by Ipsos MediaCT for ESA. The study is the most in-depth and targeted survey of its kind, gathering data from more than 2,000 nationally representative households.

WHO IS PLAYING

GAMER DEMOGRAPHICS

58%

of Americans play video games

There are an average of

TWO GAMERS

in each game-playing U.S. household

The average U.S. Household

OWNS AT LEAST ONE

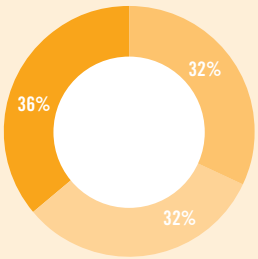
dedicated game console, PC or smartphone

51%

of U.S. households own a dedicated game console,
and those that do own an average of 2

The average age of game players is:

30

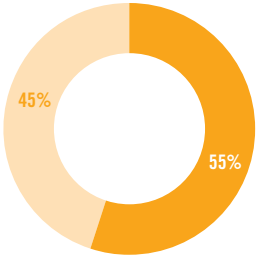


AGE
of Game Players

32% under 18 years
32% 18-35 years
36% 36+ years

WHO IS PLAYING

GAMER DEMOGRAPHICS



GENDER
of Game Players

55% male
45% female

Women 18 or older represent a significantly greater portion of the game-playing population (31%) than boys age 17 or younger (19%)

WHO BUYS COMPUTER AND VIDEO GAMES?

The average age of the most frequent game purchaser:

35

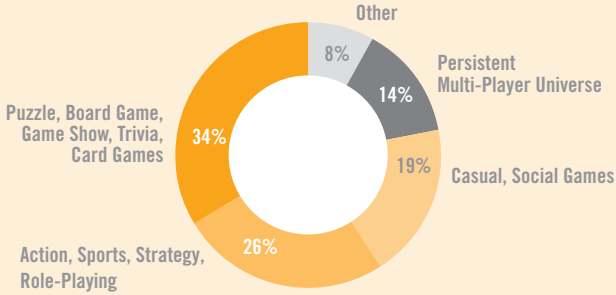
Of the most frequent game purchasers, 54% are male and 46% are female

43%

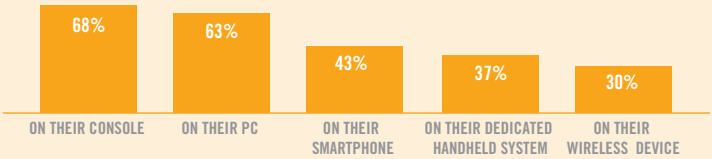
of game players believe that computer and video games give them the most value for their money, compared with DVDs, music or going out to the movies

Some of the top reasons why gamers say they purchase a computer or video game: quality of game graphics, an interesting storyline, a sequel to a favorite game, word of mouth

TYPES OF ONLINE GAMES PLAYED MOST OFTEN:

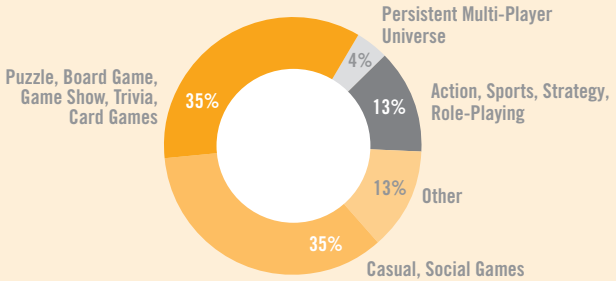


U.S. households that own a dedicated game console, PC, smartphone, dedicated handheld system or wireless device play games:



Gamers play on-the-go: **36%** play games on their smartphone, and **25%** play games on their wireless device

TYPES OF MOBILE GAMES PLAYED MOST OFTEN:



HOW WE PLAY

Gamers who are playing more video games than they did three years ago are spending <u>less</u> time:

58% playing board games

49% watching TV

47% going to the movies

44% watching movies at home

Gamers who own dedicated game consoles use them for other entertainment media, in addition to playing games:

42% use their console to watch movies

22% use their console to listen to music

19% use their console to watch TV shows

5% use their console to watch live content

62%

of gamers play games with others, either in-person or online

77%

of gamers who play with others do so at least one hour per week

32%

of gamers play social games

A majority of gamers play games with their friends and family members:

16% play with parents

32% play with other family members

42% play with friends

16% play with their spouse or significant other

The average number of years gamers have been playing video games: **13**

Adult gamers have been playing for an average of 15 years; males average 17 years of game play, females average 13 years

88%

of parents feel the ESRB rating system is either very or somewhat helpful in choosing games for their children

85%

of parents are aware of the ESRB rating system

DO PARENTS CONTROL WHAT THEIR KIDS PLAY?

86%

of parents believe that the parental controls available on all new video game consoles are useful. Further, parents impose time usage limits on video games more than any other form of entertainment:

79% of parents place time limits on video game playing

78% of parents place time limits on Internet usage

72% of parents place time limits on television viewing

69% of parents place time limits on movie viewing

89%

of the time parents are present when games are purchased or rented

80%

of the time children receive their parents' permission before purchasing or renting a game

93%

of parents pay attention to the content of the games their children play

PARENTS AND GAMES

35%
of parents play computer and video games with their children at least weekly

58%
of parents play with their children at least monthly

TOP 5 REASONS PARENTS PLAY WITH THEIR KIDS:

1. It's fun for the entire family: 85%
2. Because they're asked to: 82%
3. It's a good opportunity to socialize with their child: 78%
4. It's a good opportunity to monitor game content: 57%
5. They enjoy playing video games as much as their child does: 49%

52%
of parents say video games are a positive part of their child's life

Parents with Children Under 18 See Positive Impact of Playing Computer and Video Games:

Of the games rated by ESRB in 2012:

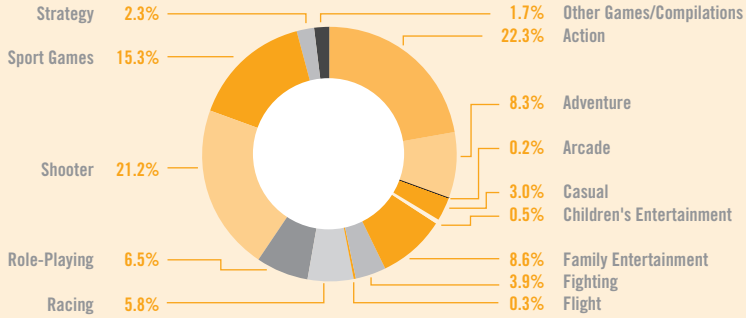
45%
received an E (Everyone) rating

22%
received an E10+ (Everyone 10+) rating

24%
received a T (Teen) rating

9%
received an M (Mature) rating

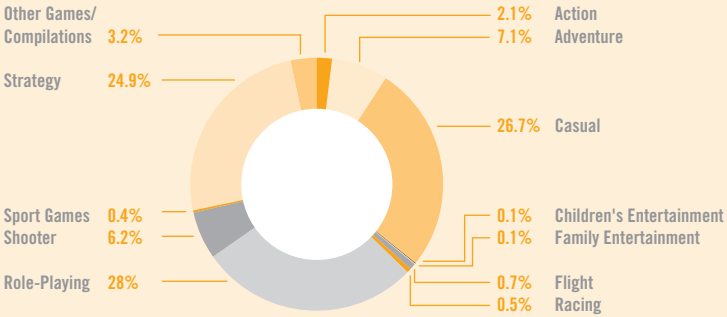
Best-Selling VIDEO GAME Super Genres by Units Sold, 2012



Source: The NPD Group/Retail Tracking Service

"I consider video games a form of design that is amazingly important today and that is going to become even more important in the future, because it is a way we interact with machines and screens."
— Paola Antonelli, senior curator of the Museum of Modern Art's department of architecture and design

Best-Selling COMPUTER GAME Super Genres by Units Sold, 2012



Source: The NPD Group/Retail Tracking Service

TOP 20 SELLING VIDEO GAMES OF 2012

BY UNITS SOLD

RANK	TITLE
1	CALL OF DUTY: BLACK OPS II
2	MADDEN NFL 13
3	HALO 4
4	ASSASSIN'S CREED III
5	JUST DANCE 4
6	NBA 2K13
7	CALL OF DUTY: MODERN WARFARE 3
8	BORDERLANDS 2
9	LEGO BATMAN 2: DC SUPER HEROES
10	FIFA SOCCER 13
11	JUST DANCE 3
12	SKYLANDERS GIANTS
13	MASS EFFECT 3
14	NBA 2K12
15	NCAA FOOTBALL 13
16	NEW SUPER MARIO BROS. 2
17	BATTLEFIELD 3
18	ELDER SCROLLS V: SKYRIM
19	BATMAN: ARKHAM CITY
20	MARIO KART 7

Source: The NPD Group/Retail Tracking Service

TOP 20 SELLING COMPUTER GAMES OF 2012

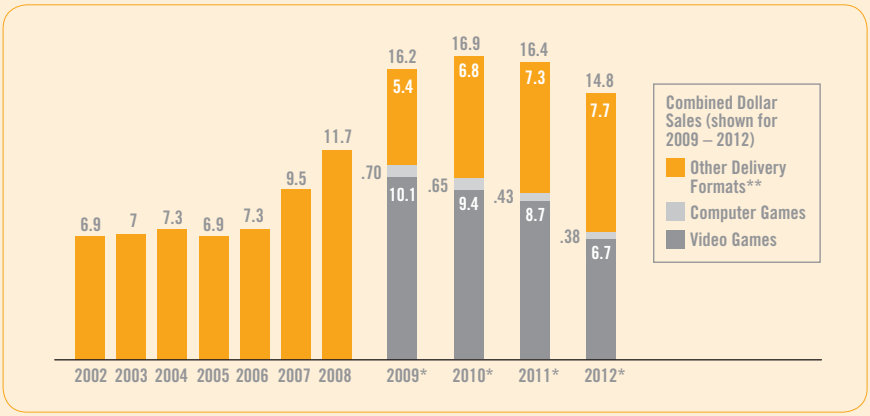
BY UNITS SOLD

RANK	TITLE
1	DIABLO III
2	GUILD WARS 2
3	WORLD OF WARCRAFT: MISTS OF PANDARIA EXPANSION PACK
4	THE SIMS 3
5	STAR WARS: THE OLD REPUBLIC
6	THE SIMS 3: SUPERNATURAL EXPANSION PACK
7	ELDER SCROLLS V: SKYRIM
8	THE SIMS 3 SEASONS EXPANSION PACK
9	WORLD OF WARCRAFT: BATTLE CHEST
10	STARCRAFT II: WINGS OF LIBERTY
11	AMAZING HIDDEN OBJECT GAMES 3 PACK
12	THE SIMS 3: PETS
13	MASS EFFECT 3
14	THE SIMS 3: SHOWTIME EXPANSION PACK
15	DIABLO BATTLE CHEST
16	BATTLEFIELD 3
17	THE SIMS 3: MASTER SUITE STUFF
18	THE SIMS 3: LATE NIGHT EXPANSION PACK
19	CIVILIZATION V
20	THE SIMS 3: GENERATIONS

Source: The NPD Group/Retail Tracking Service

U.S. Computer and Video Game DOLLAR Sales Growth

DOLLARS IN BILLIONS*



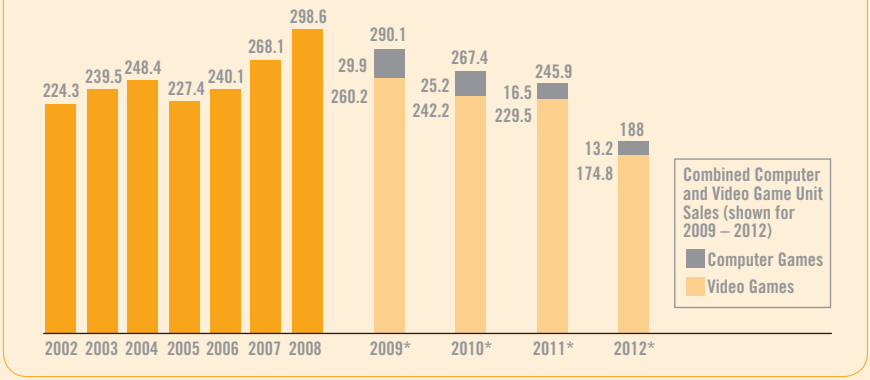
Source: The NPD Group/Retail Tracking Service; Games Market Dynamics: U.S.

* *Figures include total consumer spend*

** *Other delivery formats include subscriptions, digital full games, digital add-on content, mobile apps, social network gaming and other physical delivery. 2002-2008 figures are sales of new physical content at retail exclusively.*

U.S. Computer and Video Game UNIT Sales Growth

UNITS IN MILLIONS*



Source: The NPD Group/Retail Tracking Service; Games Market Dynamics: U.S.

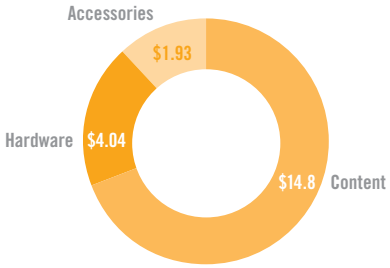
* *Figures are sales of new physical content at retail exclusively*

THE BOTTOM LINE

TOTAL CONSUMER SPEND ON GAMES INDUSTRY

Total Consumer Spend on Games Industry 2012

DOLLARS IN BILLIONS

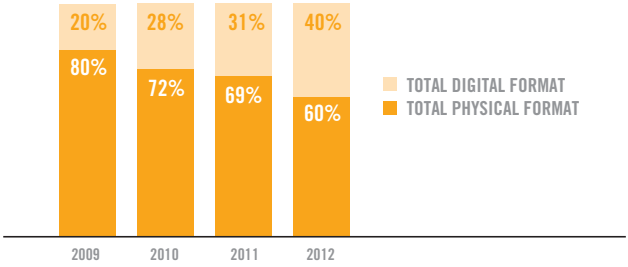


TOTAL: $20.77 BILLION

Source: The NPD Group/Games Market Dynamics: U.S.

> **"You create these communities around the game that do an incredible amount of intellectual work, and when they're done with the work, they will leave the game and go on to another game that's more challenging. Can you imagine if we had that kind of environment in classrooms?"**
>
> *— Constance Steinkuehler Squire, associate professor in digital media and co-director of the Games+Learning+Society Center at the University of Wisconsin-Madison, and former senior policy analyst in the White House Office of Science and Technology Policy*

Recent Digital* and Physical Sales Information



Source: The NPD Group/Games Market Dynamics: U.S

**Digital format sales include subscriptions, digital full games, digital add-on content, mobile apps and social network gaming*

ABOUT THE ENTERTAINMENT SOFTWARE ASSOCIATION

ESA offers services to interactive entertainment software publishers including conducting business and consumer research, providing legal and policy analysis and advocacy on First Amendment, intellectual property and technology/e-commerce issues, managing a global anti-piracy program, owning and operating E3, and representing video game industry interests in federal and state government relations. For more information, please visit www.theESA.com.

ESA Members as of May 2013

345 GAMES	www.deadliestwarriorthegame.com
505 GAMES	www.505games.com
CAPCOM USA, INC.	www.capcom.com
DEEP SILVER INC.	www.deepsilver.com
DENA	www.dena.jp/intl/
DISNEY INTERACTIVE STUDIOS, INC.	www.disney.go.com/disneyinteractivestudios/
ELECTRONIC ARTS	www.ea.com
EPIC GAMES, INC.	www.epicgames.com
GLOOPS INTERNATIONAL, INC.	www.gloops.com/en
GREE INTERNATIONAL, INC.	www.gree-corp.com
KONAMI DIGITAL ENTERTAINMENT AMERICA	www.konami.com
LEVEL-5 INC.	www.level5ia.com
LITTLE ORBIT	www.littleorbit.com
MAD CATZ INTERACTIVE, INC.	www.madcatz.com
MICROSOFT CORPORATION	www.microsoft.com
NAMCO BANDAI GAMES AMERICA INC.	www.namcobandaigames.com
NATSUME INC.	www.natsume.com
NETDRAGON WEBSOFT INC.	http://ir.netdragon.com/
NEXON AMERICA INC.	www.nexon.net
NINTENDO OF AMERICA INC.	www.nintendo.com
NVIDIA CORPORATION	www.nvidia.com
PERFECT WORLD ENTERTAINMENT	www.perfectworld.com
RUBICON ORGANIZATION	www.rubiconorganization.com/
SEGA OF AMERICA, INC.	www.sega.com
SLANG	www.slang.vg
SONY COMPUTER ENTERTAINMENT AMERICA	www.us.playstation.com
SONY ONLINE ENTERTAINMENT, INC.	www.soe.com/
SQUARE ENIX, INC.	www.square-enix.com/na
TAKE-TWO INTERACTIVE SOFTWARE, INC.	www.take2games.com
TECMO KOEI AMERICA CORPORATION	www.tecmokoeiamerica.com
TRION WORLDS, INC.	www.trionworlds.com
UBISOFT ENTERTAINMENT, INC.	www.ubisoftgroup.com
WARGAMING	www.wargaming.com
WARNER BROS. INTERACTIVE ENTERTAINMENT INC.	www.wbie.com
XSEED GAMES	www.xseedgames.com

OTHER RESOURCES

ESA PARTNERS

For more information about ESA and its programs, please visit www.theESA.com

ENTERTAINMENT SOFTWARE RATING BOARD (ESRB) | WWW.ESRB.ORG

The ESRB is a non-profit, self-regulatory body established in 1994 by ESA. ESRB independently assigns computer and video game content ratings, enforces advertising guidelines, and helps ensure responsible online privacy practices for the interactive entertainment software industry.

ACADEMY OF INTERACTIVE ARTS & SCIENCES (AIAS) | WWW.INTERACTIVE.ORG

The AIAS was founded in 1996 as a not-for-profit organization whose mission is to promote, advance, and recognize common interests and outstanding achievements in the interactive arts and sciences. The Academy conducts its annual awards show, the Interactive Achievement Awards, to promote and acknowledge exceptional accomplishments in the field. To further enhance awareness of the Academy's vision, the organization created the D.I.C.E. (Design, Innovate, Communicate, Entertain) Summit in 2002, a once yearly conference dedicated to exploring approaches to the creative process and artistic expression as they uniquely apply to the development of interactive entertainment. With more than 24,000 members, including Electronic Arts, Microsoft, Sony, Nintendo, Ubisoft, THQ, Day One Studios, Epic Games, and Insomniac Games, the Academy promotes the creativity and craftsmanship of video games worldwide.

INTERNATIONAL GAME DEVELOPERS ASSOCIATION (IGDA) | WWW.IGDA.ORG

The IGDA is the largest non-profit membership organization serving individuals who create video games. The IGDA advances the careers and enhances the lives of game developers by connecting members with their peers, promoting professional development, and advocating on issues that affect the developer community. These core activities advance games as a medium and game development as a profession.

THE NPD GROUP, INC. | WWW.NPD.COM

The NPD Group is the leading provider of reliable and comprehensive consumer and retail information for a wide range of industries. Today, more than 1,800 manufacturers, retailers, and service companies rely on NPD to help them drive critical business decisions at the global, national, and local market levels. NPD helps its clients to identify new business opportunities and guide product development, marketing, sales, merchandising, and other functions. Information is available for the following industry sectors: automotive, beauty, commercial technology, consumer technology, entertainment, fashion, food and beverage, foodservice, home, office supplies, software, sports, toys, and wireless.

VIDEO GAME VOTERS NETWORK (VGVN) | WWW.VIDEOGAMEVOTERS.ORG

The VGVN is a grassroots organization of voting-age gamers who organize and take action in support of computer and video games. Since its creation in 2006, more than 500,000 grassroots activists have joined the VGVN.

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ESSENTIAL FACTS 2012

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entertainment software association of canada

CONTENT

All data in this document is from **NPD Group's** Understanding the Canadian Gamer 2012 custom research, unless otherwise noted. The survey was commissioned by the **Entertainment Software Association of Canada** (ESAC) and gathered data from 2,969 adults, 527 teens (13-17) and 687 kids (6-12) between April 13 and April 30, 2012. The margin of error associated with the total sample is +/- 1.5, 19 times out of 20.

The **NPD Group** is the leading provider of reliable ad comprehensive consumer and retail information for a wide range of industries. Today, more than 1,700 manufacturers, retailers, and service companies rely on NPD to help them drive critical business decisions at the global, national, and local market levels. NPD helps clients to identify new business opportunities and guide product development, marketing, sales, merchandising, and other functions. Information is available for the following industry sectors: automotive, beauty, commercial technology, consumer technology, entertainment, fashion, food and beverage, foodservice, home, office supplies, sports, toys, and wireless. For more information, please visit: .

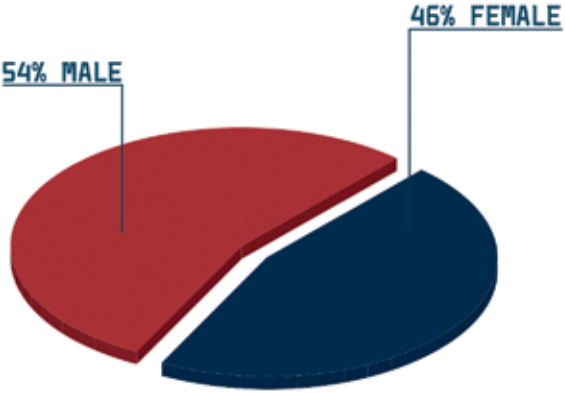
This document also contains data from **Secor Consulting Group's** Canada's Entertainment Software Industry in 2011. This report was commissioned by the **Entertainment Software Association of Canada** (ESAC) and gathered quantitative and qualitative data from computer and video game companies across Canada, including, developers, publishers and other key industry players. Saskatchewan does not appear in this report because although a few companies from the province were identified as industry participants, no responses to the survey were received. Accordingly, those companies, and the province were removed from the data analysis to avoid giving analytical results without any actual data.

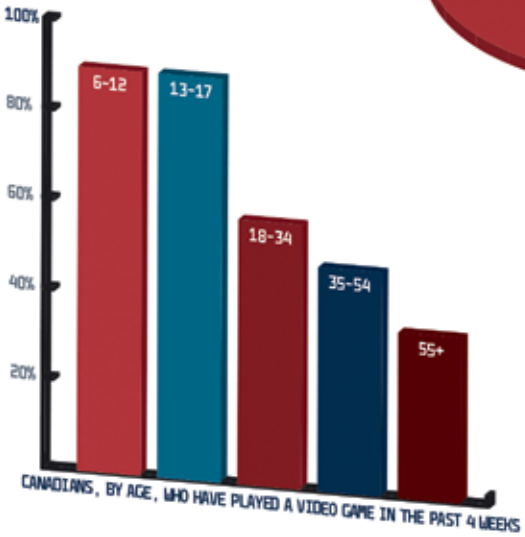
SECOR is Canada's leading independent strategy and organizational consulting firm. For the last 35 years, SECOR has helped senior executives to develop and implement their organizational strategies. SECOR has offices in Montreal, New York, Paris, Quebec, Toronto and Vancouver.

WHO IS PLAYING COMPUTER AND VIDEO GAMES?

58% OF CANADIAN ARE GAMERS

90% OF CANADIAN KIDS AND TEENS ARE GAMERS

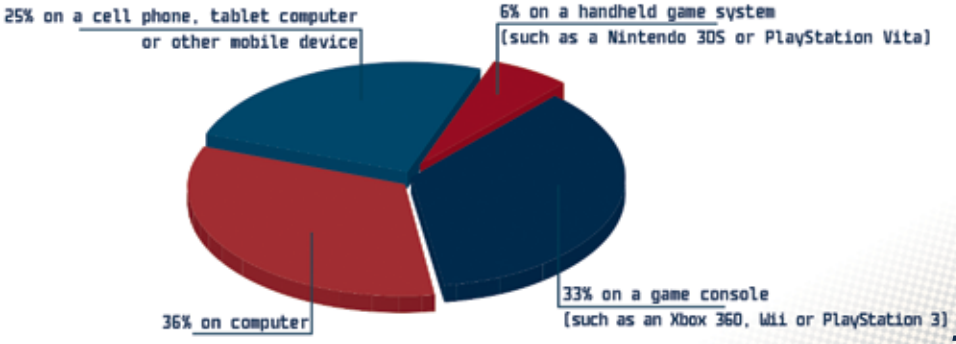




45% OF GAMERS PLAY A FEW DAYS PER WEEK

31 YEARS OLD-AVERAGE AGE OF CANADIAN GAMER

On what platform do Canadian's play video games most frequently?



61% of Canadian households own a game console
(Wii, Xbox 360 or Playstation 3)

80% own a cell phone, tablet computer or other mobile device

95% own a computer

The number of game devices in Canadian households has significantly increased since 2010, except for computers. Most (80%) have at least one cell phone or other mobile device. About 3 in 5 have at least one video game console (61%) and nearly 1 in 3 (31%) have a handheld device.

There has been a significant shift in general game device usage with 58% of gamers reporting use of computers (decrease of 12% from 2010) and 44% of gamers reporting use of handheld gaming systems (an increase of 18% from 2010).

PROFILES OF CANADIAN GAMERS

CHILDREN (6-12 YEARS)

GIRLS

35% PLAY MOST OFTEN ON A COMPUTER

30% PLAY MOST OFTEN ON A CELL PHONE OR MOBILE DEVICE

58% PLAY A FEW DAYS PER WEEK

17% PLAY EVERY DAY

SHE PLAYS

45% KID ROLE-PLAYING GAMES

MOST PLAY KID-RPGS ONLINE AND THEY PLAY ONLINE TO COLLECT TROPHIES AND ACHIEVEMENTS, AND UNLOCK OPTIONS OR CHARACTERS

28% ARCADE GAMES

BOYS

41% PLAY MOST OFTEN ON A GAME CONSOLE

24% PLAY MOST OFTEN ON A HANDHELD GAME SYSTEM

48% PLAY VIDEO GAMES A FEW DAYS PER WEEK

41% PLAY EVERY DAY

HE PLAYS

56% ACTION AND ADVENTURE GAMES

32% RACING AND FLIGHT

PARENT GAMERS AND THEIR CHILDREN

80% OF PARENT GAMERS PLAY VIDEO GAMES WITH THEIR CHILD

52% OF PARENT GAMERS REPORT FAMILY GAME PLAY ONCE A WEEK OR MORE

TEENS (13-17 YEARS)

TEEN GIRLS

42%
PLAY MOST OFTEN ON A CELL PHONE OR MOBILE DEVICE

49%
PLAY VIDEO GAMES A FEW DAYS PER WEEK
AND
20%
PLAY EVERY DAY

SHE PLAYS

27%
ARCADE GAMES

26%
MUSIC-BASED GAMES

26%
EDUCATIONAL GAMES, PUZZLE, WORD GAMES OR ANY GAMES THAT CHALLENGE HER MENTAL ABILITIES

TEEN BOYS

64%
OF TEEN BOYS PLAY MOST OFTEN ON A GAME CONSOLE

35%
PLAY VIDEO GAMES A FEW DAYS PER WEEK
AND
54%
PLAY EVERY DAY

HE PLAYS

53%
SHOOTER GAMES
A MAJORITY (74%) PLAY SHOOTER GAMES ONLINE. THEY PLAY ONLINE TO PLAY COMPETE WITH AND PLAY AGAINST OTHERS

44%
ACTION AND ADVENTURE GAMES
MOST PLAY ONLINE AND PREFER TO PLAY ONLINE TO SOCIALLY INTERACT WITH OTHERS AND TO COMPETE WITH OTHERS

29%
SPORTS GAMES

ADULTS 18-34

WOMEN

38%
PLAY MOST OFTEN ON A CELL PHONE, TABLET COMPUTER OR OTHER MOBILE DEVICE,

31%
PLAY MOST OFTEN ON A COMPUTER
AND
30%
PLAY MOST OFTEN ON A GAME CONSOLE

45%
PLAY VIDEO A FEW DAYS PER WEEK

SHE PLAYS

40%
EDUCATIONAL GAMES, PUZZLE, WORD GAMES OR ANY GAMES THAT CHALLENGE HER MENTAL ABILITIES

33%
ROLE-PLAYING GAMES (RPG)
MOST PLAY ONLINE SO THEY CAN COMPETE OR PLAY AGAINST OTHERS, PLAY TEAM GAMES AND COOPERATE WITH OTHERS

29%
PLAY STRATEGY OR ROLE PLAYING GAMES
(IN REAL-TIME OR NOT IN A CONTINUOUS WORLD)

MEN

51%
PLAY MOST OFTEN ON A GAME CONSOLE
33%
PLAY MOST OFTEN ON A COMPUTER

49%
PLAY A FEW DAYS PER WEEK

HE PLAYS

42%
ROLE-PLAYING GAMES (RPG)
MOST PLAY ONLINE SO THEY CAN COMPETE OR PLAY AGAINST OTHERS, PLAY TEAM GAMES AND COOPERATE WITH OTHERS

41%
ACTION / ADVENTURE GAMES

40%
SHOOTER GAMES
69% OF SHOOTER GAMERS PLAY ONLINE. MOST PLAY ONLINE TO COMPETE OR PLAY AGAINST OTHERS, COOPERATE OR PLAY TEAM GAMES WITH OTHERS AND TO COLLECT TROPHIES AND ACHIEVEMENTS

ADULTS 35-54

WOMEN

46%
PLAY MOST OFTEN ON A COMPUTER
AND
32%
PLAY MOST OFTEN ON A CELL PHONE, TABLET COMPUTER OR OTHER MOBILE DEVICE

A MAJORITY
PLAY AT LEAST ONCE PER WEEK
(38% PLAY A FEW DAYS PER WEEK, 32% PLAY EVERY DAY AND 13% PLAY ONCE A WEEK)

SHE PLAYS

56%
EDUCATIONAL GAMES, PUZZLE, WORD GAMES OR ANY GAMES THAT CHALLENGE HER MENTAL ABILITIES

34%
CARD GAMES

23%
ARCADE GAMES

MEN

39%
PLAY MOST OFTEN ON A COMPUTER,
33%
PLAY MOST OFTEN ON A GAME CONSOLE
AND
25%
PLAY MOST OFTEN ON A MOBILE DEVICE

46%
PLAY A FEW DAYS PER WEEK

HE PLAYS

26%
SHOOTER GAMES

26%
CARD GAMES

24%
ROLE-PLAYING GAMES
MOST PLAY ONLINE TO SOCIALLY INTERACT AND PLAY WITH OTHERS AND TO COLLECT TROPHIES AND OTHER ACHIEVEMENTS

24%
ACTION / ADVENTURE GAMES

MATURE GAMERS (55+)

WOMEN MEN

68% OF MATURE GAMERS (55+) PLAY GAMES MOST OFTEN ON A COMPUTER

HOW OFTEN DO THEY PLAY?

41% PLAY A FEW DAYS PER WEEK **AND 32%** PLAY EVERYDAY

SHE PLAYS

56%
CARD GAMES

53%
EDUCATIONAL GAMES, PUZZLE, WORD GAMES OR ANY GAMES THAT CHALLENGE HER MENTAL ABILITIES

HE PLAYS

41%
CARD GAMES

23%
EDUCATIONAL GAMES, PUZZLE, WORD GAMES OR ANY GAMES THAT CHALLENGE HER MENTAL ABILITIES

ONLINE PLAY

30% OF MATURE GAMERS ARE SPENDING MORE TIME (A LOT OR A LITTLE MORE) PLAYING VIDEO GAMES ONLINE

TEENS (13-17 YEARS)

TEEN GIRLS

HOW DOES SHE ACQUIRE GAMES?

33% SHE DOWNLOADS FREE FULL GAME OR FREE GAME APPLICATION

28% SHE DOWNLOADS A FREE DEMO OF A GAME

27% SHE RECEIVES A PHYSICAL COPY OF A NEW GAME AS A GIFT

TEEN BOYS

HOW DOES HE ACQUIRE GAMES?

58% HE PURCHASES A PHYSICAL COPY OF A NEW GAME FROM A STORE OR A WEBSITE

44% HE RECEIVES A PHYSICAL COPY OF A NEW GAME AS A GIFT

26% HE DOWNLOADS FREE GAME DEMOS

ADULTS 18-34

WOMEN

HOW DOES SHE ACQUIRE GAMES?

38% SHE PURCHASES A PHYSICAL COPY OF A NEW GAME FROM A STORE OR WEBSITE

31% SHE DOWNLOADS FREE FULL GAMES OR FREE GAME APPLICATIONS

30% SHE ACCESSES FREE GAMES FROM A GAMING WEBSITE, PORTAL OR SOCIAL NETWORK SITE

MEN

HOW DOES HE ACQUIRE GAMES?

53% HE PURCHASES A PHYSICAL COPY OF A NEW GAME FROM A STORE OR WEBSITE

35% HE DOWNLOADS FREE FULL GAMES OR FREE GAME APPLICATIONS

26% HE PURCHASES A DIGITAL DOWNLOAD OF FULL GAMES

ADULTS 35-54

WOMEN

HOW DOES SHE ACQUIRE GAMES?

37% SHE PURCHASES A PHYSICAL COPY OF A NEW GAME FROM A STORE OR A WEBSITE

33% SHE DOWNLOADS A FREE DEMO OF A GAME

33% SHE DOWNLOADS FREE FULL GAME OR FREE GAME APPLICATION

MEN

HOW DOES HE ACQUIRE GAMES?

50% HE PURCHASES A PHYSICAL COPY OF A NEW GAME FROM A STORE OR A WEBSITE

29% SHE DOWNLOADS FREE FULL GAME OR FREE GAME APPLICATION

27% HE DOWNLOADS FREE GAME DEMOS

MATURE GAMERS (55+)

WOMEN

HOW DOES SHE ACQUIRE GAMES?

35% SHE DOWNLOADS FREE GAME DEMOS

24% SHE DOWNLOADS FREE FULL GAMES OR FREE GAME APPLICATIONS

19% SHE ACCESSES FREE GAMES FROM A GAMING WEBSITE, PORTAL OR SOCIAL NETWORK SITE

MEN

HOW DOES HE ACQUIRE GAMES?

33% HE PURCHASES A PHYSICAL COPY OF A NEW GAME FROM A STORE OR WEBSITE

21% HE DOWNLOADS FREE FULL GAMES OR FREE GAME APPLICATIONS

20% HE DOWNLOADS FREE GAME DEMOS

WHAT ARE ESRB RATINGS?

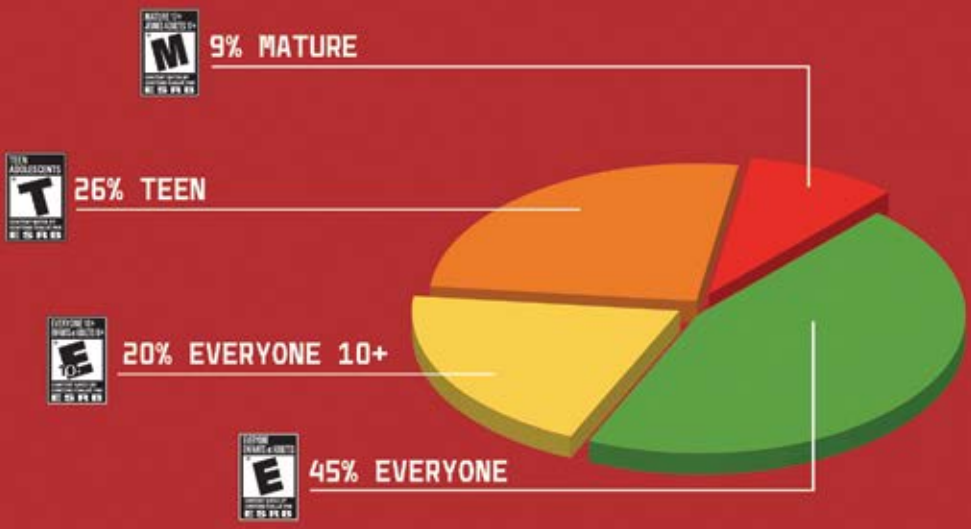
The **Entertainment Software Rating Board** (ESRB) is a non-profit, self-regulatory body that assigns computer and video game content ratings. The ESRB ratings are designed to provide consumers, especially parents, with concise, impartial guidance about the age-appropriateness and content of computer and video games so that they can make informed purchasing decisions about the games they deem suitable for their children and families.

87% OF PARENT GAMERS SOMETIMES OR ALWAYS CHECK THE ESRB RATING SYMBOL ON THE GAME BOX WHEN PURCHASING OR RENTING VIDEO GAMES FOR THEIR CHILDREN

87% OF PARENT GAMERS SOMETIMES OR ALWAYS USE THE CONTENT DESCRIPTORS WHEN PURCHASING GAMES FOR THEIR CHILD

93% OF ADULT GAMERS AGREE THAT THE ESRB RATING SYSTEM IS VERY USEFUL TO HELP PARENTS BUY AND RENT AGE-APPROPRIATE GAMES FOR THEIR CHILDREN

How many ESRB ratings were assigned in 2011?



NOTE: The ESRB assigned 1,332 ratings in 2011. These figures include instances where a publisher revised and resubmitted a game for rating as well as console dowloadable titles via the expedited short form rating process

For more information visit the ESRB website at www.esrb.org

ESRB ENTERTAINMENT SOFTWARE RATING BOARD

TOP SELLING COMPUTER AND VIDEO GAMES

12 MONTHS ENDING AUGUST 2012

01 CALL OF DUTY: MODERN WARFARE 3

02 ELDER SCROLLS V: SKYRIM

03 NHL 12

04 BATTLEFIELD 3

05 JUST DANCE 3

06 ASSASSIN'S CREED: REVELATIONS

07 BATMAN: ARKHAM CITY

08 GEARS OF WAR 3

09 DEAD ISLAND

10 SAINTS ROW: THE THIRD

11 SKYLANDERS: SPYRO'S ADVENTURE

12 THE LEGEND OF ZELDA: SKYWARD SWORD

13 SUPER MARIO 3D LAND

14 UNCHARTED 3: DRAKE'S DECEPTION

15 FIFA SOCCER 12

16 MARIO KART 7

17 MASS EFFECT 3

18 MADDEN NFL 12

19 CALL OF DUTY: BLACK OPS

20 FORZA MOTORSPORT 4

Source: NPD GROUP
Behind Every Business Decision

ABOUT THE CANADIAN COMPUTER AND VIDEO GAME INDUSTRY

- **16,000** APPROXIMATE NUMBER OF PEOPLE DIRECTLY EMPLOYED IN THE CANADIAN VIDEO GAME INDUSTRY
- CANADA'S VIDEO GAME INDUSTRY RANKS **3RD** IN THE WORLD BASED ON NUMBER OF EMPLOYEES
- **$1.7 BILLION** ESTIMATED DIRECT ECONOMIC IMPACT ON THE CANADIAN ECONOMY BY THE CANADIAN VIDEO GAME INDUSTRY
- **348** NUMBER OF COMPANIES OPERATING IN CANADA
- **11%** INDUSTRY GROWTH 2009 TO 2010
- **17%** PROJECTED GROWTH 2011 TO 2012
- **77%** OF CANADIAN GAMING COMPANIES EXPECT TO HIRE NEW GRADUATES BY 2013
- AVERAGE ANNUAL SALARY FOR EMPLOYEES AT CANADIAN VIDEO GAME COMPANIES IS **$62,000**
  (AS COMPARED TO AVERAGE SALARY OF $29,000 FOR WORKERS IN THE BROADER ECONOMY)

Source: Secor Consulting Group's Canada's Entertainment Software Industry in 2011

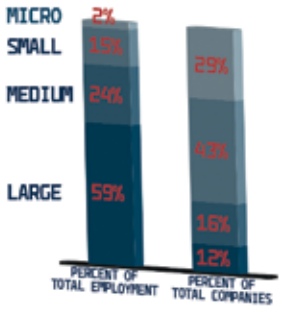
INDUSTRY STRUCTURE AND SIZE

- CANADA'S VIDEO GAME INDUSTRY IS COMPRISED OF A HEALTHY MIX OF COMPANIES OF DIFFERENT SIZES AND WITH DIFFERING CONCENTRATIONS ON PARTICULAR PLATFORMS INCLUDING TRADITIONAL CONSOLE GAMES AND NEWER PLATFORMS SUCH AS SOCIAL GAMES OR GAMES FOR MOBILE DEVICES

- MOST EMPLOYEES IN CANADA'S VIDEO GAME INDUSTRY WORK AT LARGE COMPANIES (MORE THAN 150 EMPLOYEES), BUT THERE'S MANY SMALL AND MEDIUM COMPANIES AS WELL, WITH 148 OF THEM AVERAGING ONLY 16 EMPLOYEES EACH

TOTAL COMPANIES AND EMPLOYEES IN CANADA

- MICRO: 1-5
- SMALL: 6-50
- MEDIUM: 51-150
- LARGE: 151+
- % OF TOTAL



INDUSTRY STRUCTURE BY PLATFORM

- THE CANADIAN INDUSTRY REMAINS CONCENTRATED AROUND TRADITIONAL CONSOLE GAME DEVELOPMENT AND PUBLISHING WITH 68% OF ALL EMPLOYEES WORK ON GAMES FOR THIS PLATFORM. THIS, HOWEVER, IS CHANGING RAPIDLY

- RESOURCES DEDICATED TO TRADITIONAL CONSOLE HAVE BEEN DECLINING IN RESPONSE TO RAPID GROWTH IN RESOURCES DEDICATED TO OTHER PLATFORM TYPES. CURRENTLY 2% OF RESOURCES ARE DEDICATED TO SOCIAL GAMING, 2% ARE DEDICATED TO CASUAL GAMING, AND 7% OF RESOURCES ARE DEDICATED TO MOBILE GAMING

- THE CONTINUING DOMINANCE OF TRADITIONAL CONSOLE GAMES IN COMPARISON WITH OTHER PLATFORMS, IS THE RESULT OF THE VERY HIGH AMOUNT OF RESOURCES DEDICATED TO THIS PLATFORM BY A COMPARATIVELY SMALL NUMBER OF COMPANIES

- THE LARGEST CATEGORY IS COMPRISED OF FIRMS THAT FOCUS ON A NUMBER OF PLATFORMS SIMULTANEOUSLY–A FACT THAT SEEMS REFLECTIVE OF A TIME OF INDUSTRY EVOLUTION

Source: Secor Consulting Group's Canada's Entertainment Software Industry in 2011

SELECTED PROVINCIAL PROFILES

QUÉBEC

- THE PROVINCE OF QUEBEC HAS GROWN TO BE THE DOMINANT PLAYER IN THE CANADIAN VIDEO GAME INDUSTRY
- 86 VIDEO GAME COMPANIES CALL QUEBEC HOME
- 8,236 INDUSTRY JOBS ARE LOCATED THERE
- QUEBEC'S INDUSTRY GROWTH RATE IS 16% PER ANNUM, SLIGHTLY ABOVE THE INDUSTRY'S AVERAGE
- QUEBEC'S INDUSTRY IS EXPECTED TO GROW BY 16%

ONTARIO

- ONTARIO IS HOME TO THE GREATEST NUMBER OF MICRO AND SMALL COMPANIES, HOUSING APPROXIMATELY 30% OF ALL COMPANIES IN EACH CATEGORY. SHARES OF TOTAL INDUSTRY RESOURCES ARE GOING TO GAMES ON MOBILE, SOCIAL, AND CASUAL PLATFORMS MORE RAPIDLY THAN IN QUEBEC
- 96 COMPANIES ARE LOCATED HERE
- TOTAL NUMBER OF EMPLOYEES IS 2,600
- HISTORICAL GROWTH WAS 20%
- ONTARIO'S INDUSTRY IS EXPECTED TO GROW BY 21%

BRITISH COLUMBIA

- IN BRITISH COLUMBIA THERE IS A STRONG COMPLIMENT OF SMALL AND MEDIUM-SIZED COMPANIES
- TOTAL NUMBER OF COMPANIES IS 83
- TOTAL NUMBER OF EMPLOYEES IS 3,882
- HISTORICAL GROWTH HAS BEEN FLAT (0%)
- BC'S INDUSTRY IS EXPECTED GROW BY 10%

Source: Secor Consulting Group's Canada's Entertainment Software Industry in 2011

WHO WE ARE

esa entertainment software association of canada

The **Entertainment Software Association of Canada** (ESAC) is the voice of the Canadian computer and video game industry that employs approximately 16,000 people at nearly 350 companies across the country. By contributing $1.7 billion in economic activity and cultivating workers with a combination of creative, technological and management skills, the video game industry is supporting Canada's position in the changing global economy. This dynamic and growing industry is currently the world's third largest and holds first place on a per capita basis based on employment levels in other countries. ESAC works on behalf of its members to ensure the legal and regulatory environment is favourable for the long-term development of Canada's video game industry.

ESAC MEMBERS

Activision Blizzard

Disney Interactive Studios

EA

Microsoft

Nintendo

Solutions 2GO Inc

Sony Computer Entertainment

Take One Marketing Ltd.

T2 Take Two Interactive

THQ

Ubisoft

WB Games

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